

Railway Age

APRIL 14, 1945

Founded in 1856

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SERIAL RECORD

APR 26 1945

COPY 1
GIFT

Save wheels!
..REDUCE FLANGE WEAR



Specify

WINE



THE WINE
RAILWAY APPLIANCE CO.
TOLEDO, OHIO

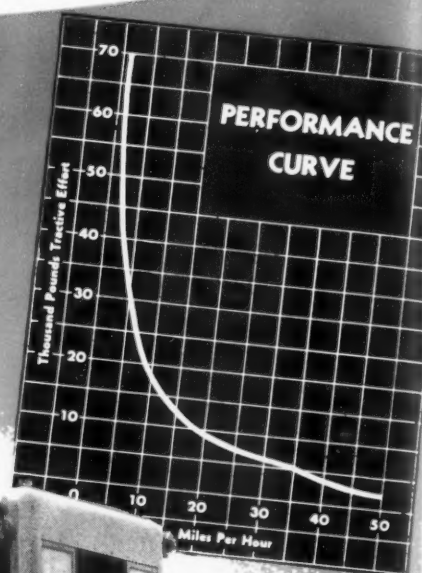
**BRAKE
BALANCER**

100 Ton PORTER

650 H.P. DIESEL ELECTRIC SWITCHER

TWIN-POWERED FOR DOUBLE AVAILABILITY

Built for heavy yard, terminal and belt-line work, this newest 100-ton 650 horse power PORTER is in every sense a railroad man's switcher. Powered by two complete Diesel-Electric Units, it is equal to the toughest switching job, yet is versatile enough to be used for light work. Its two independent power plants insure constant availability and unlimited operating range. Complete specifications on request.



ONLY **PORTER** BUILDS A COMPLETE LINE OF LOCOMOTIVES

PORTER
"Better Built"
Locomotives
Established 1886



H. K. PORTER COMPANY, INC.
PITTSBURGH PENNSYLVANIA

Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1911, at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price \$6.00 for one year U. S. and Canada. Single copies, 15 cents each. Vol. 118, No. 15.

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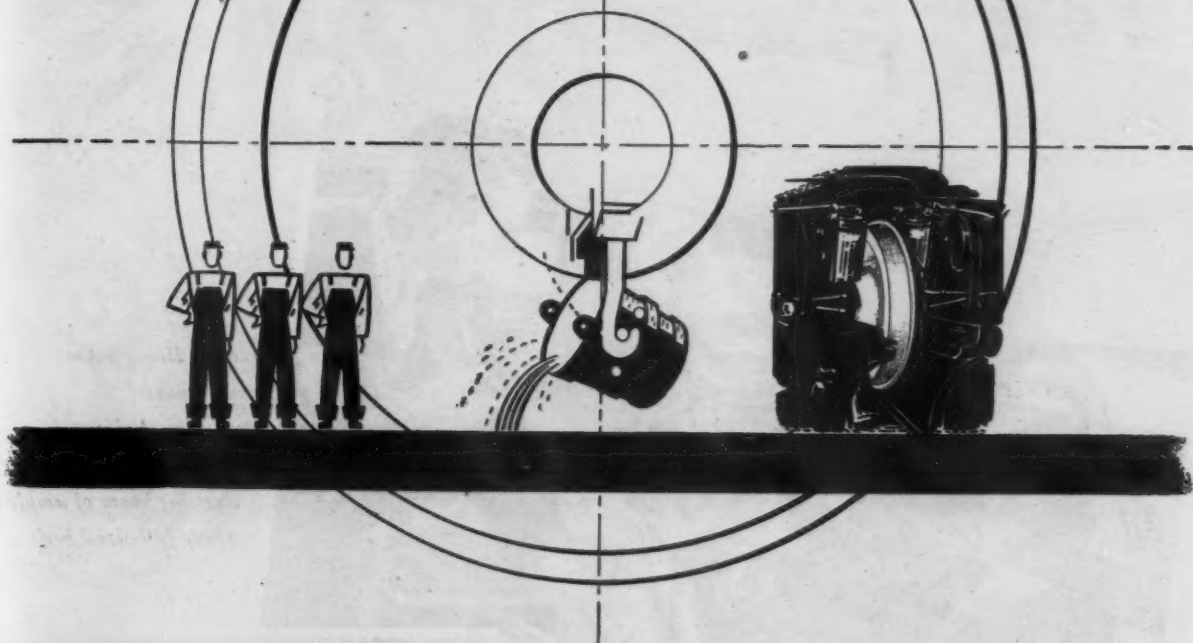
PERFORMANCE
VE

50



May 4, 1933
e copies, 25
AY ACE

What makes a Wheel GOOD?



Is it men? Materials? Manufacturing processes? Obviously it's all three. There is no adequate substitute for any one ingredient—brains, fine steel, or advanced methods of manufacture.

And what are the standards by which *you* judge a wheel? Unquestionably they include performance . . . high mileage . . . low maintenance costs.

By any or all of these standards, Bethlehem Wrought Steel Wheels have been setting the pace for years. Two things have helped make this

possible: Bethlehem's research in special-purpose steels, and Bethlehem's facilities for the making of specialized forgings. Added to these are the most modern methods of heat-treating, control, and machining.

As evidence of quality in Bethlehem wheels and axles, we point to their records of service: figures collected for comparative purposes by hard-headed railroad men. In the light of today's unprecedented traffic, there can be no stronger argument.



**BETHLEHEM
WROUGHT-STEEL
WHEELS**

A de luxe



spacious living room
broad couch
two easy chairs
two large windows
dressing room of ample size
three full-sized beds

INDIVIDUAL REGULATION OF...

lights
heating
ventilation
air conditioning



Pullman.

CHICAGO • NEW YORK

Drawing Room *by* **PULLMAN-STANDARD**

WE have anticipated the day when even finer passenger equipment will be called for . . . equipment that will keep the public sold on railway transportation.

With this in mind, Pullman-Standard has already unveiled many revolutionary designs for passenger cars . . . cars that will be ready for construction as soon as permissible.

The de luxe Drawing Room is one of these designs . . . embodying every available refinement that makes for passenger comfort.

— Constant development of new equipment that makes for better and more prosperous railroading has always been the aim of this organization.

***Pullman-Standard builds the MOST
because it builds the BEST***

***Standard* CAR MANUFACTURING COMPANY**

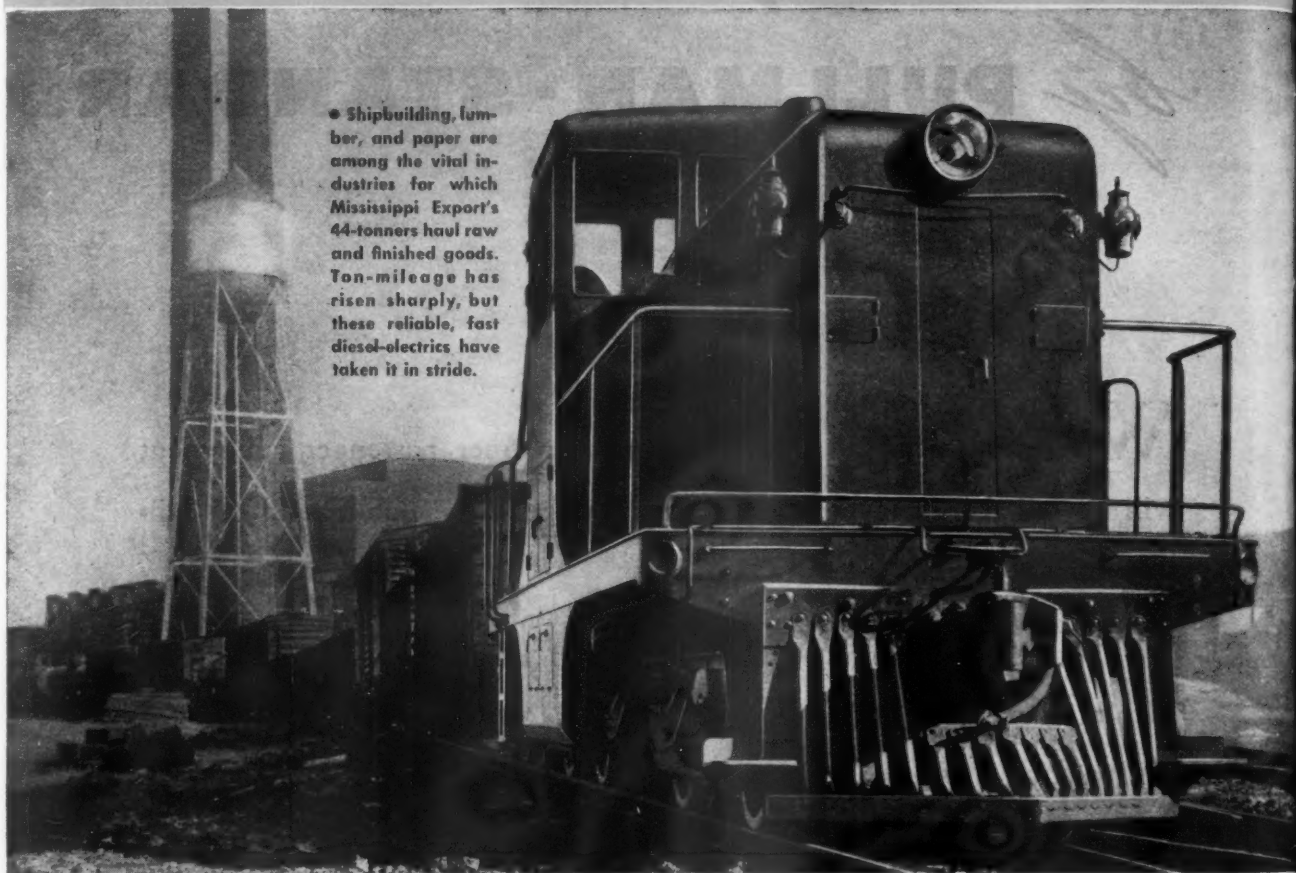
CLEVELAND • WASHINGTON, D. C. • PITTSBURGH • BALTIMORE • BIRMINGHAM • WORCESTER, MASS.

San Francisco Sales Representative, Mark Noble

April 14, 1945

Every day THIS 44-TONNER

• Shipbuilding, lumber, and paper are among the vital industries for which Mississippi Export's 44-tonners haul raw and finished goods. Ton-mileage has risen sharply, but these reliable, fast diesel-electrics have taken it in stride.



• Double-headin' two 44-tonners permits hauling much longer trains, when necessary—up to 3000 tons between Evanston and Moss Point.

Alco



AMERICAN LOCOMOTIVE

R WORK

Since it be
road, MISS
\$30 pe

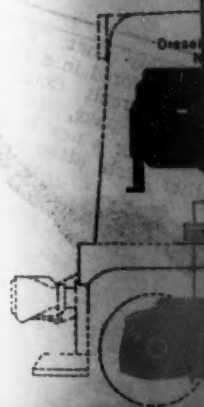
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April 14, 1965

TONNER



...a portable haul-
...necessary—up to
...and Moss Point.

OTIVE

RAILWAY AGE

R WORKS 20 HOURS *continuously*

Since it became an all-diesel-electric road, MISSISSIPPI EXPORT is saving \$30 per locomotive per day.

These savings began in October, 1940, when the first 44-tonner went into service. They are the result of versatility, high availability, and high utilization.

VERSATILITY. Every day this war-busy locomotive *switches* cars at Pascagoula and Moss Point, then *accumulates* a train and hauls it *on the road* for 38 miles to Evanston—interchange point with the G M & O. Here it is again used for *switching*, and then makes the return *road* trip with another train to Pascagoula, where connections are made with the L & N.

AVAILABILITY. Its average is 95 per cent, because it can stay at work for many hours without interruption for fueling or servicing.

UTILIZATION. Averages 83 per cent, or 20 hours per day—10 in switching and transfer service, and 10 on the road.

In addition to saving \$30 per locomotive-day on operation, track maintenance has been reduced. One section of the roadbed,

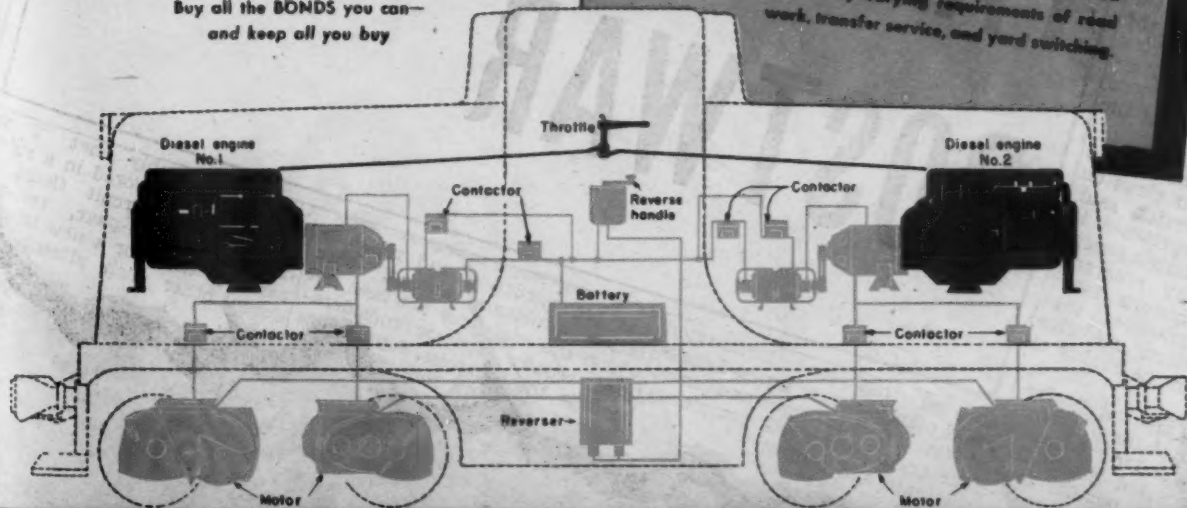
over a tidewater area, is soft and, before the diesel-electric was operated, was often under water because of the continual pounding of the former motive power. Since arrival of diesel-electrics, this maintenance job has been practically eliminated.

In 1941, the road purchased another 44-tonner. Double headed, these two units are hauling trains as heavy as 3000 tons from Evanston to Moss Point. Mississippi Export is one of scores of roads we have been privileged to serve in applying motive power that has earning power. In this instance, it was small diesel-electrics. In your case it might be a straight electric, a steamer, or a larger diesel-electric. We build all three, which enables your Alco or G.E. representative to recommend the type economically best suited to the job.

THE INSIDE STORY

High availability and versatile operation of the 44-tonner are largely the result of electric drive which delivers full engine horsepower to the wheels smoothly and at all locomotive speeds. In effect, it provides an infinite number of gear ratios which change automatically to meet load conditions, and it permits full diesel-engine output throughout the speed range of the locomotive, regardless of grades or trailing load. Thus, this 44-tonner is admirably suited to the widely varying requirements of road work, transfer service, and yard switching.

Buy all the BONDS you can—
and keep all you buy



and GENERAL ELECTRIC

121-31-9580

ON, March 1, expanded United Nations co-operation and world affairs ap- in first Congressional session as the plan for in- monetary stabilization, at Bretton Woods, and security organization, at Dumbarton Oaks and at Yalta, were sub- jects of attacks in the House and Senate.

legislation to lease authority for "lend-lease" program for relief or rehabilitation abroad. Under the extension, recom- mended by the Administration and

President Chiang is reported to the San Francisco conference again, as well as to dem- onstrate China's feeling of close

Shipments den change fact that the Allied unexpectedly found itself release a large number of ships for civilian use. The main reason is that port facilities, which one time were so bad they a backlog of 150 ships were be unloaded in northern harbors alone, now proved that there is a result, each ship car make many more trips less time and thus needed. The release of ships been made possible by the war and Pacific

Wanted

10,000-15,000 NEW PASSENGER CARS POSTWAR

ad- ght, com- mitted -Time ed by mocrat, establish nmunity Dr. Her-

some degree prospect reluctance. management to co-oper- ily inevitable istribution and o far as is pos- i control so effi- i interference in il be minimal." was one of the symposium of the Fund of New York Hos- pital and the New Medicine at the

ay agencies and or their views on. Dr. Herrick said, ttle experience in r offering programs onary programs to disturb many d practices that American medicine d in the quality of

Medical profes- at the physician ble for the health fected from the is a popular text d, "not always d. advocates of e re- ce the en 4-Fs the 4,000

asserted that the "Dumbarton Oaks plan is simply a new League of Nations, which three or at most four great powers will completely dominate and control."

Bradt

war reconstruction and rehabili- abroad, with tion problems which the lend- lease act does not deal, require separate considera- tion by the Congress. Agre- entered with fore-

General Assembly that "I am the law," was favored in a ruling in Hamilton Circuit Court on his seventy-two-page, pared petition for a new trial dozen other such attempts

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here's where many will come from-



And why!

In the years immediately succeeding the cessation of hostilities, it is estimated by informed authorities that several thousand new passenger cars will be delivered to the railroads annually.

They will come from modern plants like the A.C.F. shops at St. Charles, Mo. where new and extensive facilities are now being completed . . . or from Berwick, Pa. where work for war has not blunted but sharpened the skills of thousands of our craftsmen.

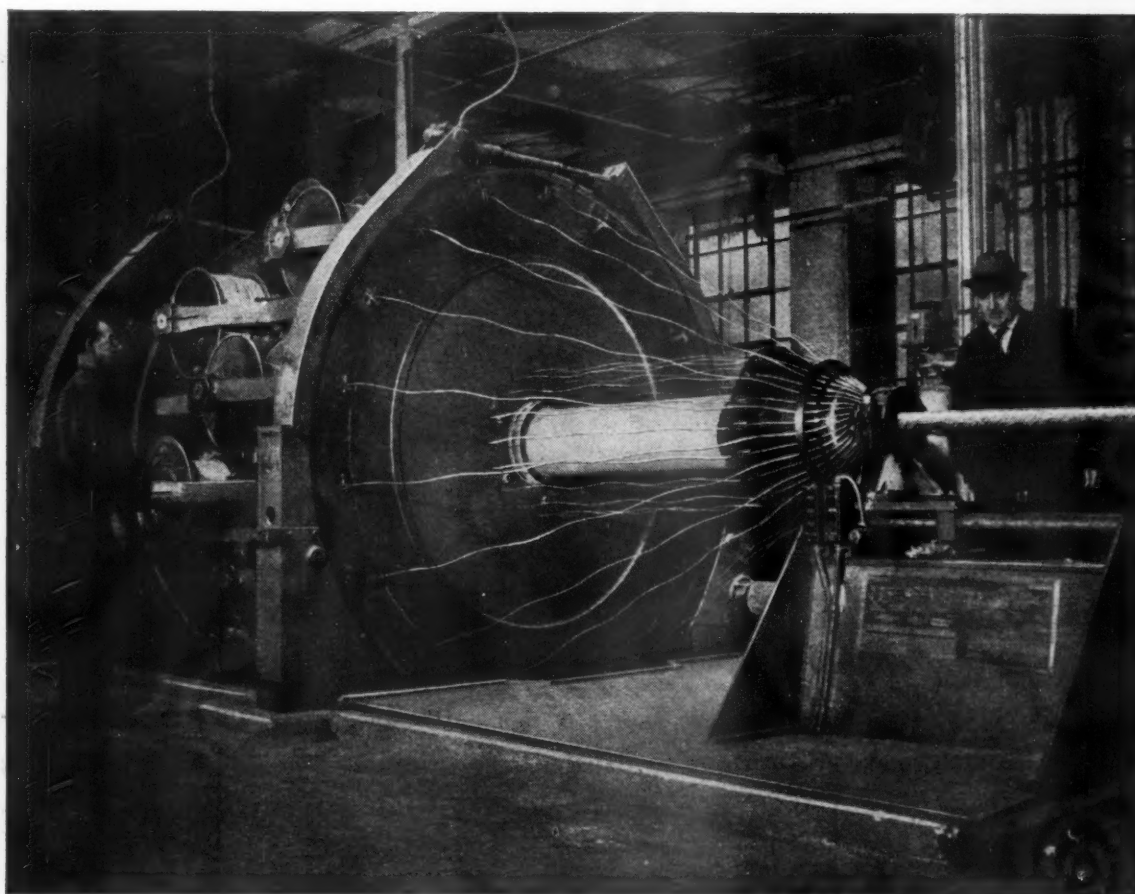
Intimately aware of how one railroad's car needs differ from another's — A.C.F. is prepared with the designs and equipped with the experience to work in ALL the structurally sound and suitable metals the trains of tomorrow will require.

Whatever A.C.F. builds — it is known to build well!

a.c.f.

AMERICAN CAR AND FOUNDRY CO.

New York • Chicago • St. Louis • Cleveland • Washington • Philadelphia • Pittsburgh • St. Paul • San Francisco



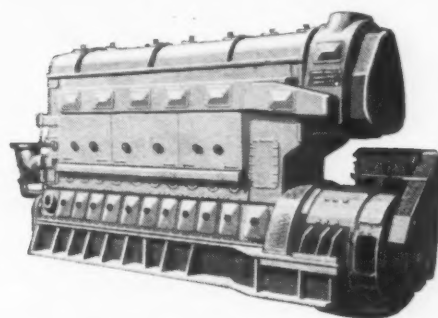
***Making Armored Kerite Submarine Cable
for Railway Signal Service, 1945***

THE KERITE INSULATED WIRE & CABLE COMPANY INC
NEW YORK CHICAGO SAN FRANCISCO

Tomorrow's **POWER** Today!



It's the
Opposed-Piston Diesel
Locomotive by
FAIRBANKS-MORSE



Fairbanks-Morse

A name worth remembering

Not One...
NOT TWO...

but

3

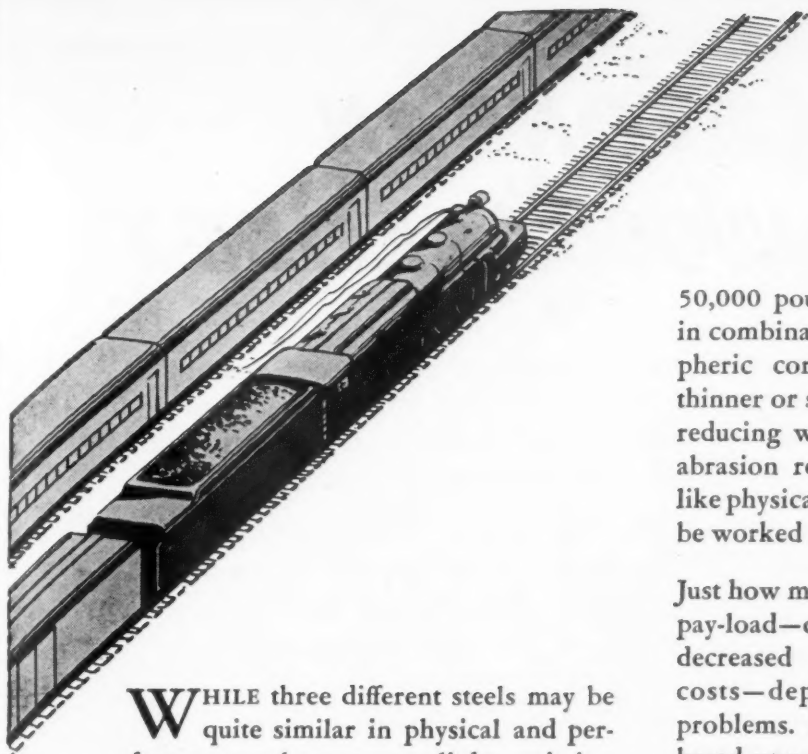
**HIGH STRENGTH
STEELS**



now made by
Republic

**REPUBLIC ALDECOR
REPUBLIC COR-TEN
REPUBLIC DOUBLE STRENGTH**

Other Republic Products include Carbon, Alloy and Stainless Steels . . . Bars Plates,



WHILE three different steels may be quite similar in physical and performance values, some slight variation may fit one of them to do a specific job more efficiently and more economically than either of the other two.

That is why Republic, consistent with its policy of providing industry with a complete range of steels to cover *all* individual requirements, now offers the railroad industry **THREE** different High Strength Steels—ALDECOR, COR-TEN and REPUBLIC DOUBLE STRENGTH.

The primary purpose for which these steels are produced in bars, plates, sheets and strip is that of building weight-saving transportation equipment—equipment in which dead-weight is held to the lowest possible point commensurate with safety and cost.

From a physical standpoint, all three provide a minimum yield strength of

50,000 pounds per square inch, which, in combination with resistance to atmospheric corrosion, permits the use of thinner or smaller sections as a means of reducing weight. All three are equal in abrasion resistance to carbon steels of like physical properties. And all three may be worked and welded without difficulty.

Just how much you can gain in increased pay-load—or how much you can save in decreased operating and maintenance costs—depends upon your particular problems. Estimates can now be made based upon the performance and experience obtained from COR-TEN and DOUBLE STRENGTH during more than a decade of use in railroad equipment. And while ALDECOR, *the newest development in high strength steels*, does not have this background of use, its qualities indicate that it may be preferred for certain applications as it becomes better known.

To help you use these steels to best advantage, Republic offers you the experience of its metallurgical staff. These men are ready to cooperate with your staff in studying your requirements and in determining which high strength steel to use. Please let us know as far in advance as possible the date on which you would like a Republic representative to call.

REPUBLIC STEEL CORPORATION
 GENERAL OFFICES • CLEVELAND 1, OHIO
 Export Department: Chrysler Bldg., New York 17, N. Y.



Republic

HIGH STRENGTH STEELS

ALDECOR • COR-TEN • DOUBLE STRENGTH

Sheets, Strip, Bolts and Nuts, Rivets, Wire, Boiler Tubes, Mechanical Tubing, Fabricated Steel Products.

NO SKELETONS IN *Heywood's CLOSET!*



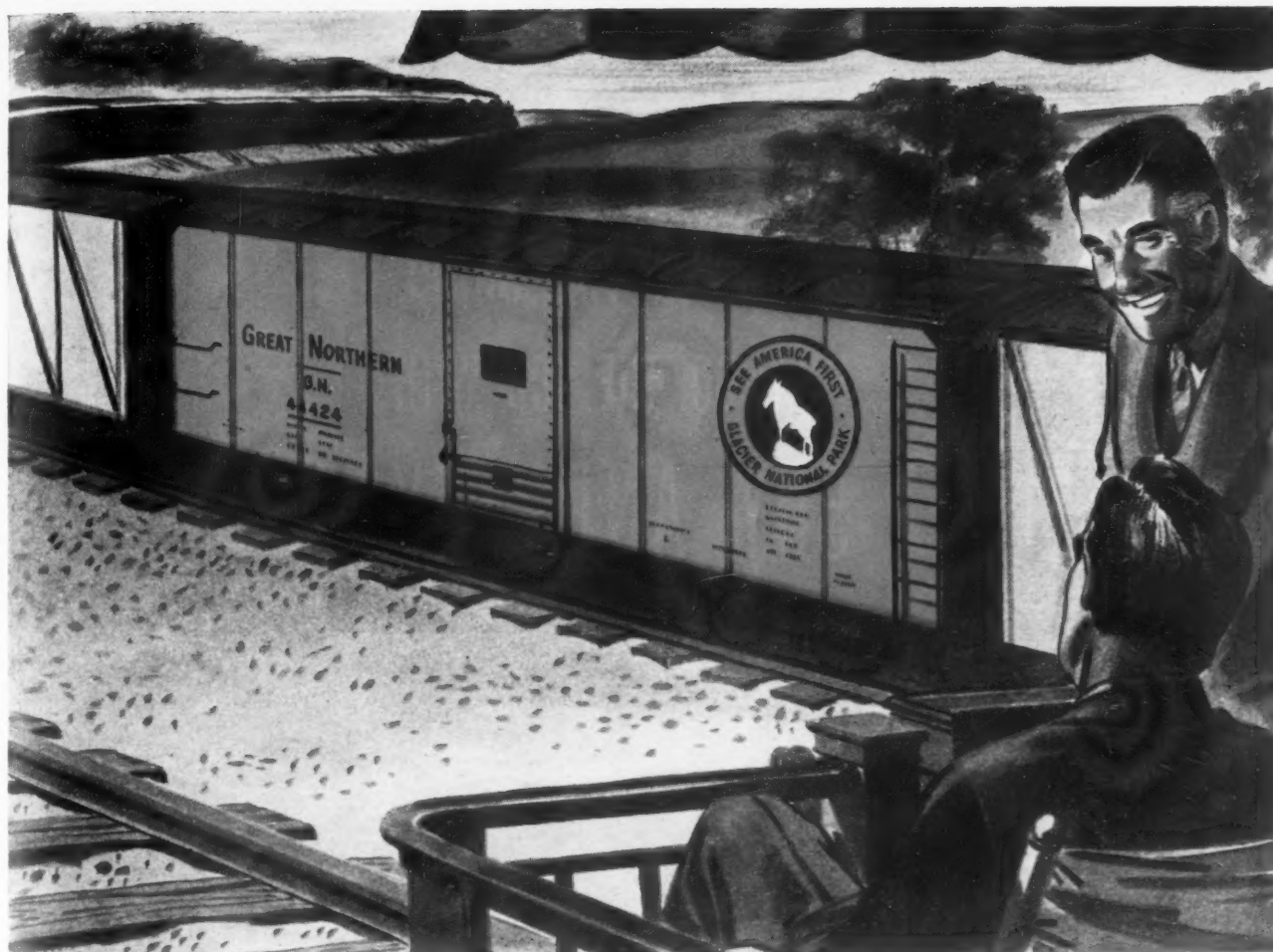
IN Heywood's long history there are no coach seat designs of which we are ashamed. There are no *family skeletons* in Heywood's design closet! Every coach seat we built was *ahead* of its time in design, comfort, and engineering efficiency.

- Back in 1936, we built the 174 P7SS (shown below) especially for the NYNH&H Railroad. The more we design our postwar seats, the more difficult we find it to surpass this practical, comfortable design. We are proud of this New Haven chair . . . proud because passengers find it so comfortable . . . proud because New Haven officials acclaimed it "the peak of engineering efficiency from top to bottom, inside and out!"
- That's the way Heywood built coach seats in the past . . . that's the way Heywood will build them in the future!

*The New York
New Haven
and Hartford*
RAILROAD CO.



HEYWOOD-WAKEFIELD
Established 1826 . . . Gardner, Massachusetts
TRANSPORTATION SEATING DIVISION



Ever hear the story about the Traveling Salesman?

Color on your cars sure "tells the world", and Carhide does the job overnight!

RE-PAINTED in bright, attractive colors, a freight car sure stands out in the crowd, "shouts your wares" all along the line. It's just like having a traveling salesman—or a crew of them—"talking up" your road, building prestige for you wherever they go.

● ● You may say "... but we can't afford lengthy layups in the paint shop—not today!" However, do you know that with Pittsburgh Carhide in color, freight cars can be re-finished

completely in twenty-four hour cycles, ready for stenciling, after overnight drying? That's because Carhide goes on easier, and dries amazingly fast. Consider, too, these other Pittsburgh advantages...

Live-Paint Protection!

● ● Many Pittsburgh Railway Finishes are enriched with exclusive "Vitolized Oils" which remain in the paint film long after application—keep it *live*, tough and elastic. In addition, Pittsburgh's famous molecular-selection process improves on "Nature's best" by producing a brand new oil, which vastly improves drying and

assures uniformity of paint quality and performance.

● ● **Pittsburgh Railway Finishes**, available for a wide variety of applications, include Carhide for all types of freight equipment, Stationhide for stations, Ironhide for bridges, and Lavax Synthetic Finishes for passenger cars and locomotives. Call on us for expert advisory service. Our extensive experience in the field can often save you time and money.

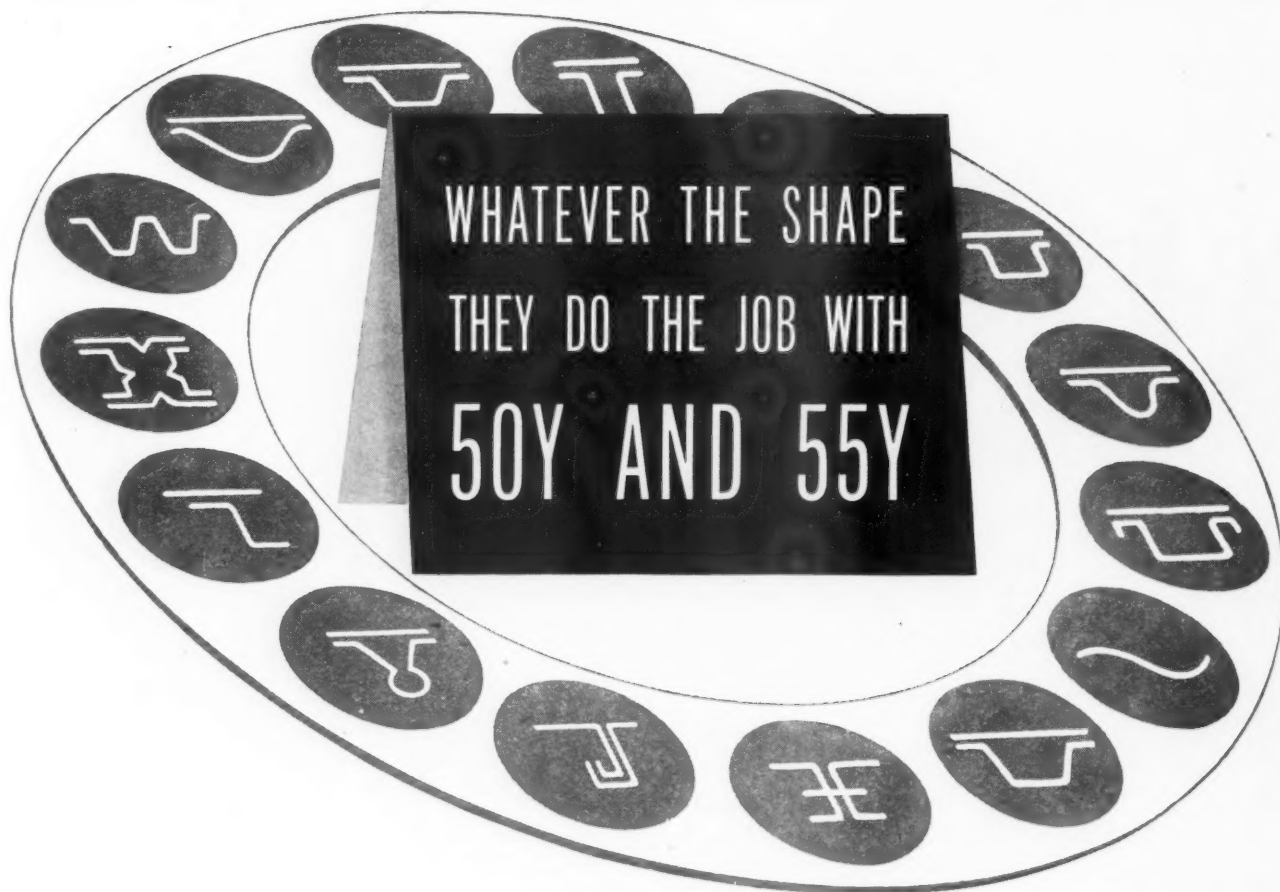
PITTSBURGH PLATE GLASS CO.
Industrial Paint Division, Pittsburgh 22, Pa.
Factories: Milwaukee, Wis.; Newark, N. J.; Houston, Tex.; Los Angeles, Cal.; Portland, Ore.
Ditzler Color Division, Detroit, Mich. The Thresher Varnish Co., Dayton, O.



PITTSBURGH PAINTS

PITTSBURGH PLATE GLASS COMPANY, PITTSBURGH, PA.
RAILWAY FINISHES

PITTSBURGH STANDS FOR QUALITY PAINT AND GLASS



When you need low-alloy high strength steel sheets for lighter, stronger structural parts, you can be sure that ARMCO 50Y and 55Y will do the job your blueprints call for.

Fabricate Readily

Many types of light-weight car design call for the use of high strength steel reinforced by stiffeners like those shown on this page. ARMCO 50Y and 55Y are the logical choice for such designs, because they fabricate so readily. Their high yield strength is obtained by chemistry without sacrificing ductility.

For other uses, lighter than conventional gages can be used without reinforcement of any kind.

Besides these structural advantages, ARMCO Low-Alloy High Strength Steels have excellent welding properties. Corrosion resistance of ARMCO 50Y and 55Y is considerably greater than that of ordinary steel. Where extra rust resistance is needed, zinc or aluminum coatings can be applied.

Ask for More Data

Write us for complete data on ARMCO Low-Alloy High Strength Steels. It may help you design new or improved structural parts that have less weight and greater efficiency. Armco Railroad Sales Co. Inc., 1111 Curtis Street, Middletown, Ohio.

ARMCO RAILROAD SALES CO. INC.



Sure, it has taken a beating, but —

631000
B. END

B&O Aluminum Hopper Car proves it can "TAKE IT"

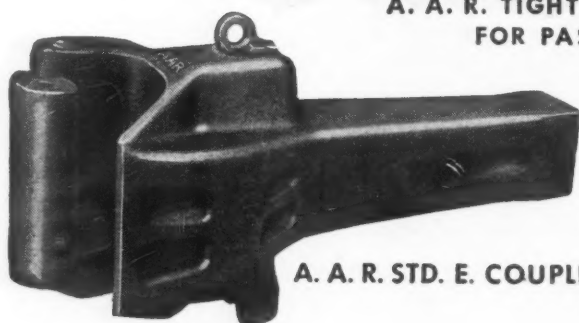
This unretouched photograph shows, after 10 years of service, the interior of the Baltimore & Ohio hopper car built of Alcoa Aluminum. Body, underframe and trucks are in excellent condition; the body has *never* been painted. This car weighs 27,700 pounds, carries a gross load of 141,300 pounds—a ratio of tare weight to revenue load of 1 to 5.1. ALUMINUM COMPANY OF AMERICA, 2178 Gulf Building, Pittsburgh 19, Pennsylvania.

ALCOA FIRST IN ALUMINUM

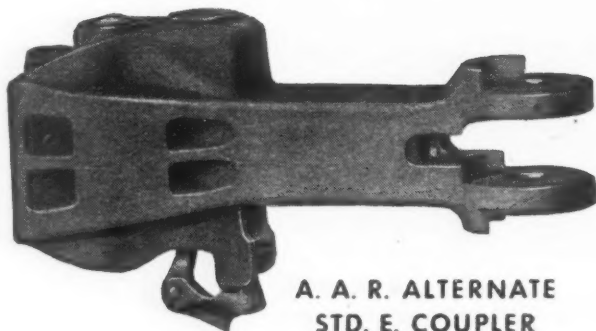




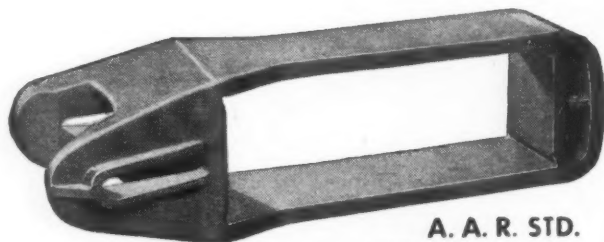
**A. A. R. TIGHT LOCK COUPLER & YOKE
FOR PASSENGER SERVICE**



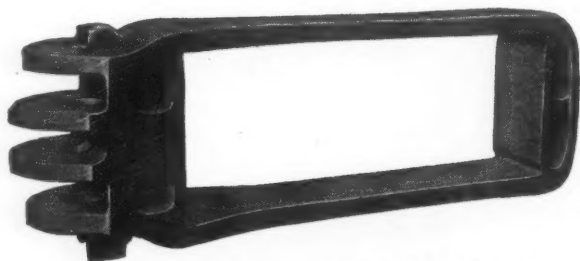
A. A. R. STD. E. COUPLER



**A. A. R. ALTERNATE
STD. E. COUPLER**



**A. A. R. STD.
VERTICAL PLANE
HORIZONTAL KEY YOKE**



**A. A. R. ALTERNATE STD.
VERTICAL PLANE SWIVEL YOKE**



National

since 1875 has been making cast-
ings for railroad equipment.

Today the National line of rail-
road devices includes:

A. A. R. STANDARD E COUPLERS

A. A. R. TIGHT LOCK COUPLERS

ENGINE COUPLER POCKETS

A. A. R. CERTIFIED DRAFT GEARS

A. A. R. DRAFT YOKES

A. A. R. TYPE JOURNAL BOXES AND LIDS

ISOTHERMOS JOURNAL BOXES

WHEELS

TRUCKS, SIDE FRAMES, BOLSTERS, ETC.

NATIONAL MALLEABLE AND STEEL CASTINGS CO.

General Offices: CLEVELAND, OHIO

Sales Offices: New York, Philadelphia, Chicago, St. Louis, San Francisco.
Works: Cleveland, Chicago, Indianapolis, Sharon, Pa., Melrose Park, Ill.

Lighter -
Stronger -
Better



**And Simplicity itself...
The New Schaefer
EVER-TITE Wear Plate**



The new Schaefer EVER-TITE Wear Plate is easy to install in the side frame bracket. While in service, springs under compression hold it rigidly in place and save wear on the side frame bracket. Simplicity of construction and rugged design make the Schaefer EVER-TITE Wear Plate ideal for high speed freight service.

*Schaefer
Appliances*

STANDARD
ON MOST
ROADS

LIGHT WEIGHT DESIGN INSURES MORE THAN CAR LIFE

Schaefer **EQUIPMENT
COMPANY**
KOPPERS BUILDING • PITTSBURGH, PA.

DROP-FORGED FOR LIGHT WEIGHT. HIGH STRENGTH. LONG LIFE AND SAFETY

GOOD MAINTENANCE EQUIPMENT DESERVES GOOD MAINTENANCE MATERIALS

• With manpower scarce . . . and traffic heavy . . . it's more important than ever to keep work equipment in A-1 condition.

When maintenance on this equipment becomes necessary, use Johns-Manville specialized packings and friction materials. It is one of the best forms of "trouble-free insurance."

J-M Packings are made in specialized forms for all types of service equipment . . . from creosoting tanks to water-treating stations and air compressors.

J-M Friction Materials are available in special sizes and types for cranes, draglines, tractors and other roadway equipment.

For full information about these Johns-Manville Materials for railroad uses, write Johns-Manville at New York, Chicago, Cleveland, St. Louis or San Francisco.



Johns-Manville

87 YEARS OF SERVICE TO TRANSPORTATION

Insulations

• Packings

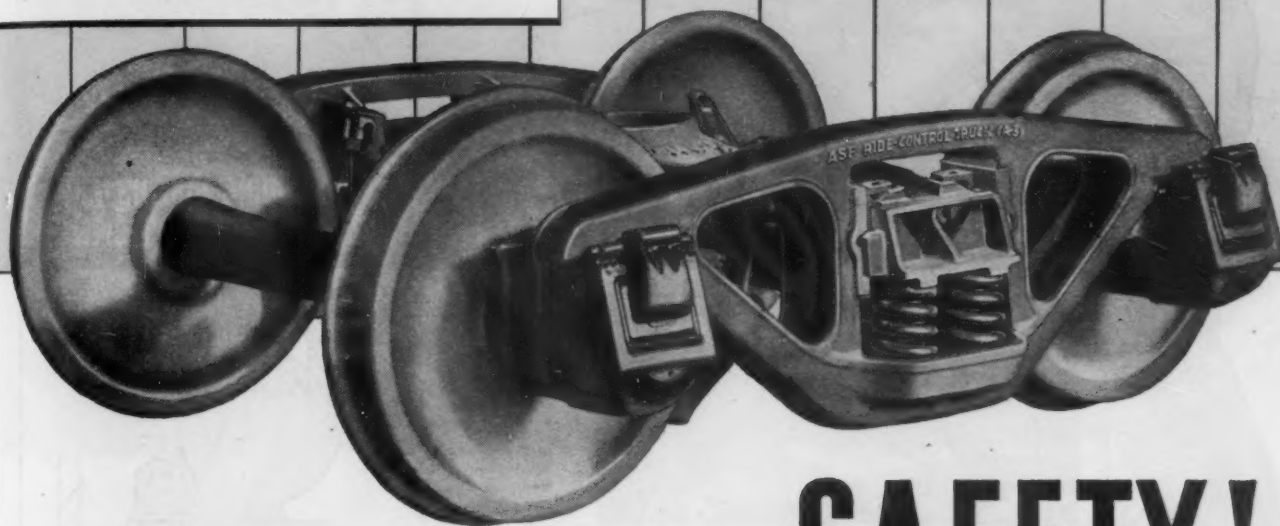
• Friction Materials

• Refractory Cements

• Building Materials

LONG
CONS

THE TRUCK FOR TODAY'S NEED... TOMORROW'S SPEED!



FOR MORE LADING SAFETY!

Today's climbing loss-and-damage figures are variously laid to the inevitable effects of war—acute shortage and rapid turnover of labor; increasing use of worn and reused containers; inadequate packaging; and inattention to sound freight-handling practices. Each *is* a contributory factor. And there is one more—the freight car itself or, more specifically, the *trucks* on which it rides. Much in this direction *can* be done to ease freight smoothly along the rails despite wartime difficulties. The A. S. F. Ride-Control Truck (A-3) gives freight a smooth, easy ride.

LONG SPRING TRAVEL
CONSTANT FRICTION CONTROL

AMERICAN STEEL FOUNDRIES
CHICAGO

MINT-MARK OF



FINE CAST STEEL

SWING GRINDER DUST *Can be* FULLY CONTROLLED



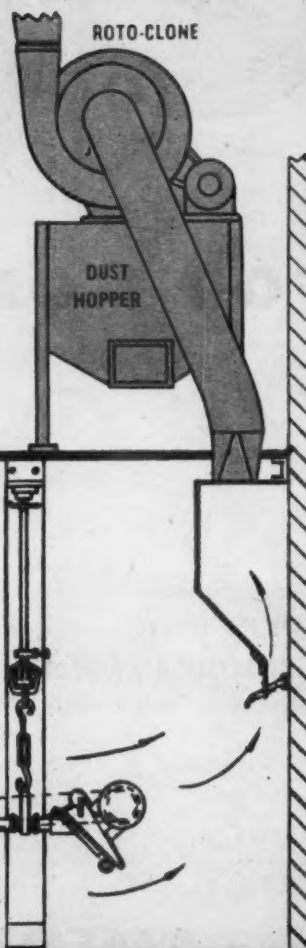
ROTO-CLONE

EXHAUSTED GRINDING BOOTHS ARE EFFECTIVE, COMPACT, EFFICIENT



View at the left shows an installation of two Type D Roto-Clones serving eight swing grinder booths in a large foundry. The drawing at the right shows a typical above - the - booth Roto-Clone installation.

ROTO-CLONE served grinding booths offer the most positive method of controlling swing-frame grinder dust. The finest particles follow the sparks—go directly into the grinding booths and are carried off. Roto-Clones draw in a far larger volume of air than is practical with other exhaust methods and because the dust is removed dynamically and trapped by centrifugal force. Collection is positive and thorough. Roto-Clone's one moving part, the impeller, exhausts and precipitates at the same time. Extremely simple and compact, the Roto-Clone can be installed at or near the dust source saving space, piping and power. Bulletin No. 272 describes the Type D Roto-Clone in Detail. Send for it.

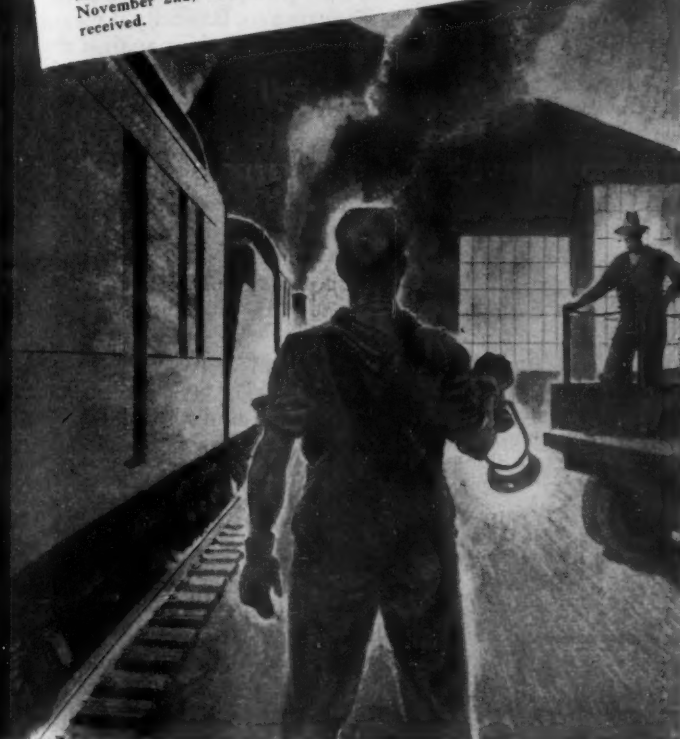


AMERICAN AIR FILTER COMPANY, INC., 111 CENTRAL AVE, LOUISVILLE, KY.

INCORPORATED
IN CANADA DARLING BROTHERS, LIMITED, MONTREAL, P. Q.

Quick delivery to a war job. A customer in Sausalito, California, phoned our St. Paul warehouse on October 30. Did we have 25,000 lbs. of 12" x 53 lb. CB sections 20'0" long? Could we rush delivery? We answered "Yes" to both questions and went into action.

The material was cut, loaded, and on its way the same evening. Shipment was made in a special baggage car. We arranged routing and scheduling for hookup with several fast passenger trains. Material arrived at its destination, almost 1800 miles away, on November 2nd, only three days after the telephone inquiry was received.



Special handling for the Navy. On Friday afternoon, September 15, our Chicago office received a phone order from the U. S. Navy, Bureau of Yards and Docks, for 1787 pieces of 1/2" diameter Dardelet Rivet Bolts in various lengths. The order was to be packed for transportation by air. The bolts were needed to repair a vitally needed crane which had been damaged by Japanese bombs in the South Pacific. The Navy's flight schedule demanded delivery at the Chicago airport on Monday morning.

The order, marked "Special," went to the warehouse at 5:00 P.M. Friday. We made up 18 boxes, lined them with waterproof paper, packed the bolts according to specified sizes, stenciled the boxes with required markings, and strapped them with steel. This specially packed order was ready to be shipped out on Saturday afternoon, although not required until Monday morning.



If it's service you want... *Call us*

OUR warehouses today have large stocks and a good variety of steel available for quick shipment. When you need steel, phone, write or wire our nearest warehouse. We may be able to help you solve a production problem—avoid serious delay on a war job. Our stocks include NE Alloy Steels which have proved as good or better in many applications than steels ordinarily used. Your inquiries will receive careful attention and quick action.



CHICAGO (90), 1319 Wabansia Ave., P. O. Box MM BRUnswick 2000
BALTIMORE (3), Bush & Wicomico Sts., P. O. Box 2036 GILmore 3100
BOSTON (34), 176 Lincoln St., Allston, P. O. Box 42 STAdium 9400
CLEVELAND (14), 1394 E. 39th St., HEnderson 5750
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Battery ailments, like those of the human system, must be diagnosed by an expert.

Proper diagnosis of your battery requirements is the first step in obtaining efficient, economical battery service. Gould field engineers are technical experts. They can give you authoritative decisions on what type and size of battery is best for your particular job.

Behind these men is the Gould organization with half a century of battery research and experience. Originator of such outstanding batteries as the Gould Kathanode and the Gould Plante, the engineering department can be depended on to translate the field engineer's findings into the proper installation.

Here is a specialized service at your command. We invite you to use it.



Write Dept. 54 for Catalog 800 on Gould Kathanode Glassklad Batteries for Car-lighting and Air-Conditioning Service.

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Since 1898 THE BATTERY PICKED BY ENGINEERS



For Excellence in storage battery production at Depew plant

GOULD STORAGE BATTERY CORPORATION, Depew, N. Y. Branches: Albany • Chicago • Dallas • Depew • Evansville • Los Angeles • North Bergen • Rock Island • St. Paul • Sioux City • Terre Haute

THE UNIQUE GOULD KATHANODE

One of a series of informative articles for users of industrial batteries

Gould Kathanode battery construction was originated in the United States 20 years ago. Basically it meant the use of a glass retainer against the positive plate surfaces, but Gould has developed it far beyond the original conception.

In the Gould Kathanode construction of today you get the famous long life Black Oxide active material, a grid designed to match active material life, and specially made spun glass mats which lock active material in place and protect this vital unit against service abuse.

The "Unit-Seal" envelop, a perforated rubber sheet, 60% porous, is then wrapped around the plate and mats—forming the now famous Gould Kathanode Positive Unit.

These features are important because in addition to being an efficient supplier of electrical power, a storage battery must be able to withstand whatever rough handling its service demands.

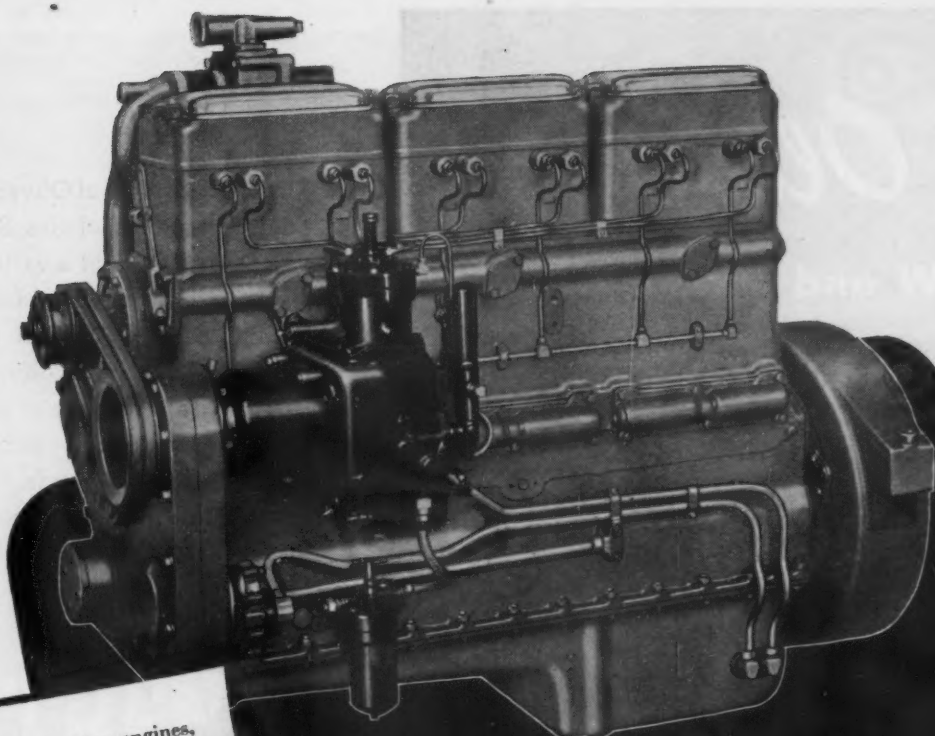
Gould design and construction, however, do not stop with perfecting the positive unit, for Gould engineers know that unless all parts meet service requirements, the failure of any one may make the entire battery inoperative.

Important in this overall design is the negative plate. Gould uses an interlocking bar type grid. The negative active material is a highly porous, metallic oxide compounded to a special formula that assures close electrical contact with grid members.

Separation is effected by means of another Gould development, Durapor rubber separators. These have great porosity, deep channels, and thin backweb, without any sacrifice in strength or durability.

The element is then placed in a hard rubber or monobloc container. The cover, also of hard rubber, fits over this assembly and is sealed with a compound that resists vibration or cracking. A tight terminal post seal is made by using a soft spool type bushing, compressed between the cover and sealing mat.

This completeness of design, developed over 20 years of service with the Kathanode principle, has resulted in a better product, better for the user from all standpoints.



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For switching engines, motor trains, maintenance equipment and auxiliary power requirements, choose from four Cummins Diesels. Model H, 4 $\frac{1}{8}$ " x 6", four or six cylinders, are rated 100 hp. and 150 hp., respectively, at their maximum 1800 rpm.

NH

Series NH and NHS six-cylinder engines are "higher horsepower" versions of the Model H. The NH develops 200 hp. at 2100 rpm., and the supercharged NHS, 275 hp. at the same speed. Both have dual valves, 5 $\frac{1}{8}$ " bore and 6" stroke.

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The Model L Cummins Diesel is a 7" x 10", six-cylinder engine which develops its maximum output of 250 hp. at 1000 rpm. Cummins Dependable Diesels are offered as original equipment by many leading manufacturers of industrial locomotives.

AS MANY a railroad equipment builder and operator before you has learned, the Cummins Dependable Diesel's fuel and maintenance economy saves money! Its touch-of-a-button starting and superior flexibility save time! Its 24-hour-a-day dependability saves money . . . time . . . and trouble! For your equipment, standardize on the proved power . . . Cummins Diesel power.

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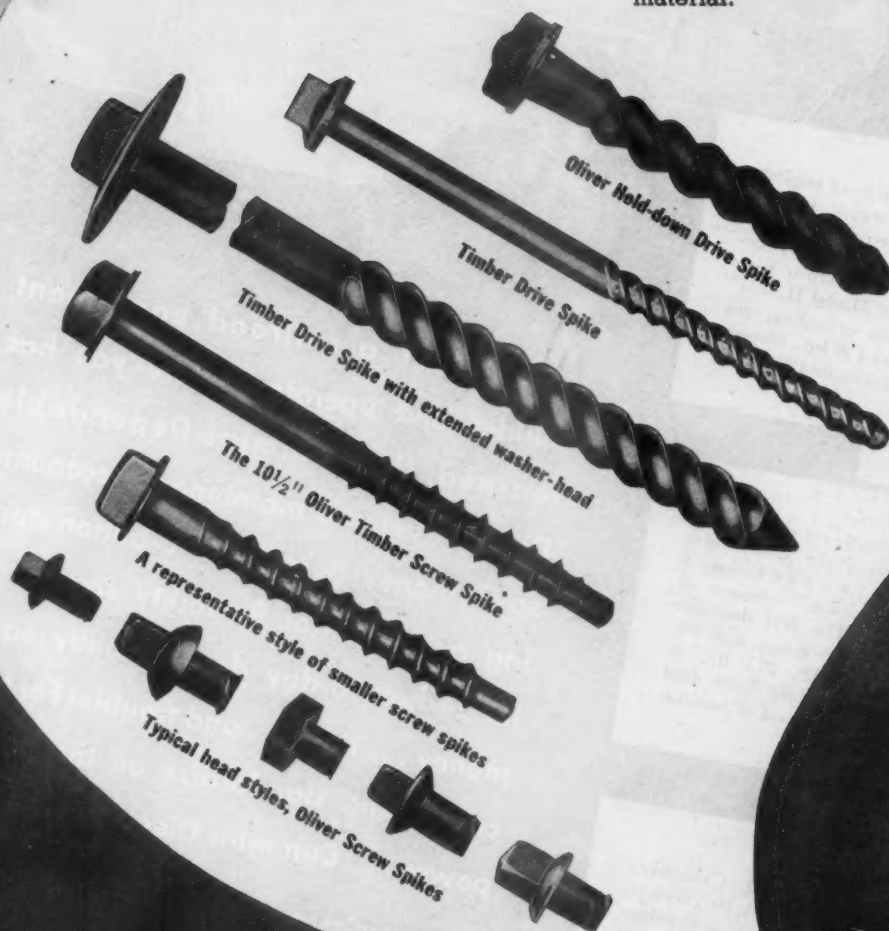


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For Railroad Structures

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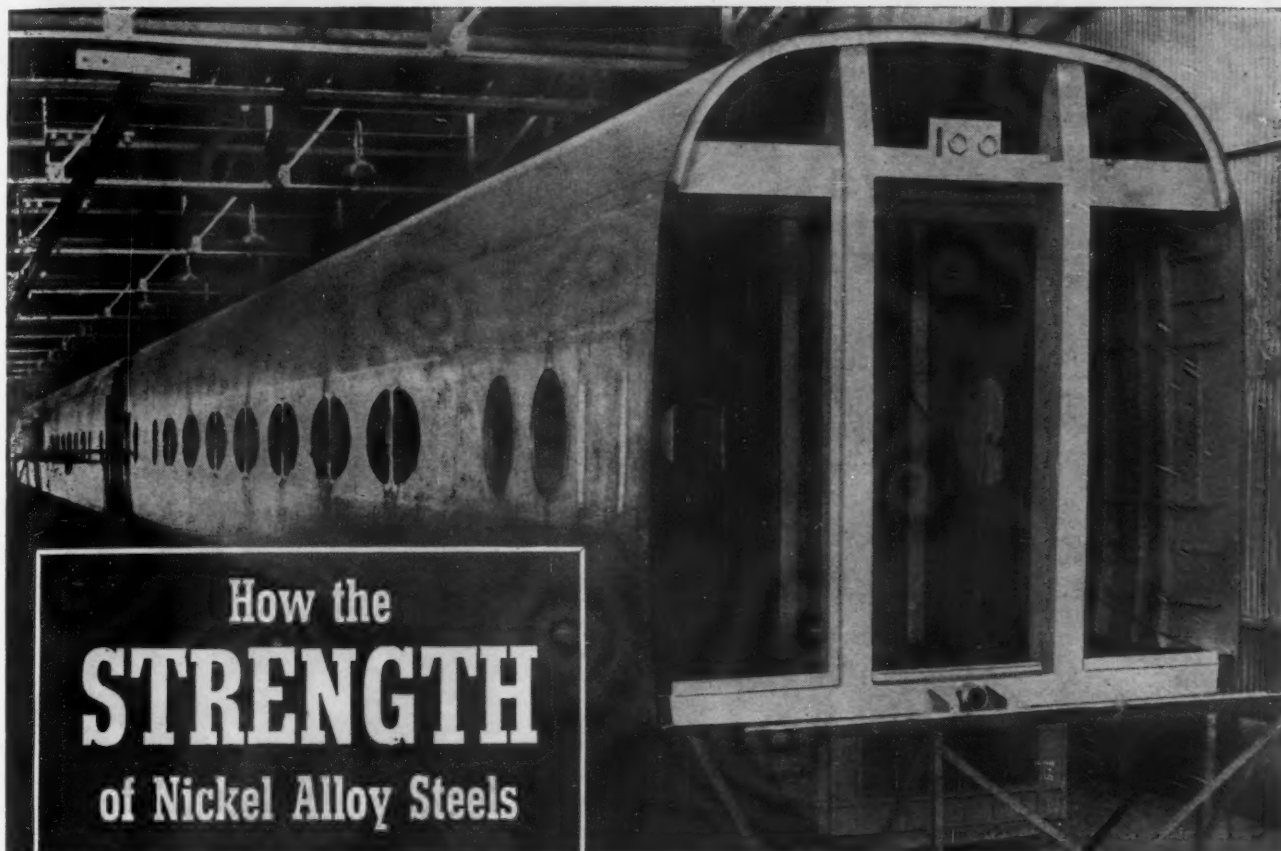


OLIVER

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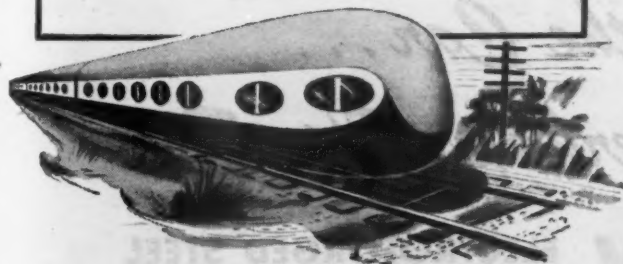


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How the **STRENGTH** of Nickel Alloy Steels

**improves new types
of rolling stock**



Road test results have proved that smooth riding qualities can be attained without heavy equipment. The high strength/weight ratios of nickel alloy steels permit considerable safe weight reduction in this new type easy riding car.

Superlative comfort at all speeds...remarkable stability at 100 miles per hour...freedom from vibration...economy in weight...

These characteristics of tomorrow's railway car are exemplified in the new type de luxe coach built by Preco, Inc.

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Floors and center sills are built of "18-8" stainless steel sections. Buffer stems and draft stops are cast of nickel-molybdenum steel, normalized and drawn at 1200° F., supplied by Warman Steel Casting Company.

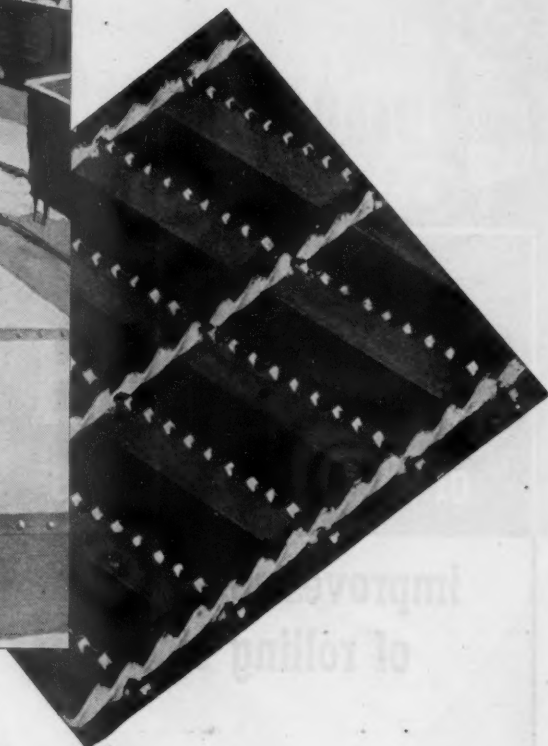
One of the alloys containing nickel may help you reduce bulk and deadweight safely...and to combat wear and corrosion. We invite consultation on the use of Nickel or Nickel alloys in your equipment.

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have been awarded
the Army-Navy "E"
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BLAW-KNOX ELECTROFORGED STEEL RUNNING BOARDS

Without servicing, without additional expense these super-safe Running Boards and Brake Steps are good for the life of any Tank or Box Car. In all weathers the

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April 14, 1945

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4 OF A FAMILY OF 18

The group of "Caterpillar" Diesel-powered 44-tonners operating along the "Route of the Rockets" has already hung up a record of nearly HALF A MILLION SERVICE HOURS.

Indicative of their ability to stay on the job is the record of one of them: Out of 22,838 assigned hours, 21,211 have been operated hours... for an availability of 93%.

The Rock Island is one of 37 class railroads using these modern, compact, powerful and dependable locomotives. Instantly ready for work, they ask no waiting to "get up steam"; no time out for coaling. They consume no fuel while awaiting assignments. And their mechanical features for long life, efficiency and truly low operating cost are so impressive that a description of them ought to be on your desk now. WRITE for this interesting information.

CATERPILLAR TRACTOR CO. • PEORIA, ILLINOIS

CATERPILLAR DIESEL ENGINES

REG. U.S. PAT. OFF.

TRACTORS • MOTOR GRADERS • EARTHMOVING EQUIPMENT



*Wont you **EVER** be able to
go back to work, Daddy?*



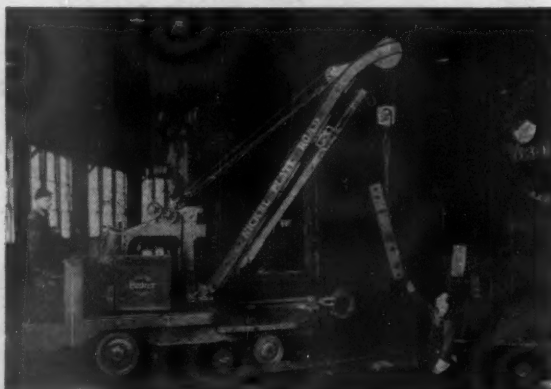
Nearly half of industrial handling casualties are hernia cases

Handling heavy objects, overloading hand trucks, improper stacking and other material handling abuses are the direct cause of more accidents and more lost man hours than any other factory operation. The

cost of compensation for resulting injuries amounts to more than \$15,900,000 annually. The cost in lost production is many times this figure: a conservative estimate of working days lost runs in excess of 5 million per year! . . . *The proper use of power industrial trucks can go far toward eliminating this man-power waste.*

A survey by a Baker Material Handling Engineer may reveal methods for greatly improving your plant safety records and for increasing the effectiveness of workers.

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Baker INDUSTRIAL TRUCKS

The Cushioning of the FUTURE—with a PROVEN PAST "U.S." KOYLON FOAM



For eight years, railway passengers fortunate enough to ride in seats and berths equipped with comfortable "U.S." Koylon Foam cushioning and mattresses have arrived at their destinations rested, refreshed—always willing to declare the trip seemed to take even less time than it did.

For the railroads fortunate enough to have equipped their cars with "U.S." Koylon Foam, maintenance was reduced to a minimum. One, for instance, reports that many of their Koylon mattresses had needed no repairs, renovation or replacement during all that time.

For the comfort of your postwar passengers and substantial savings in maintenance costs, see that specifications for your new cars, as well as the present ones you will modernize include "U.S." Koylon Foam cushioning and bedding.

Listen to "Science Looks Forward"—new series of talks by the great scientists of America—on the Philharmonic-Symphony Program. CBS network, Sunday afternoon, 3:00 to 4:30 E.W.T.

Scientific Control Insures "U.S." Koylon Foam Quality

"U.S." Koylon Foam is traditionally enduring. Its long life is due to rigid laboratory and production controls which permit no material or human variables to affect its making. Koylon quality remains consistently uniform, year in, year out.

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FOAM

UNITED STATES RUBBER COMPANY

Serving Through Science



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No. 4 doesn't "hoot" any more...



... Maybe it was just imagination, but I could've sworn No. 4, *that's the Streamliner*, used to lay back on its drivers and raise its nose as it blew for the Second Street Crossin'.

I wanted to tell that snooty engine something that would take it down a peg or two . . . how 25 years ago a 4-6-2 high-balled a special train down this line at better than a 90-mile average . . . but I don't have to now . . . No. 4 doesn't "hoot" since they modernized the station.

Hate to admit but it *was* startin' to look plenty old-fashioned 'longside that new one over at Freesville. Maybe that's what was botherin' No. 4.

But that's all fixed now. About four months ago a couple of young fellows came in . . . said they were station maintenance men from down the line. They measured, took pictures and looked things over like they were thinkin' of buying the place. I thought they were just a couple of front office kids tryin' to look busy.

I was wrong though. Two weeks later a load of some stuff called Weldwood Plywood came in. A day

or two later two or three carpenters and an electrician blew in . . . and then things really started to happen.

Didn't seem like it was more than a couple of days before the station started to look like a new building . . . you'd never know it.

Then they rebuilt the old seats, and changed the old doors . . . put in what they called "flush" doors. Sure made a difference.

I got curious. Nothin' like this ever happened around here before. Got to talking to the boss-carpenter, and he told me that this Weldwood Plywood was really something . . . guaranteed for the life of the building, and didn't cost much either.

He said it was a cinch to put up, because it came in big sheets, and then

you didn't have to worry about warping, because of what he called "cross-grain" construction.

It sure looks nice and I'm mighty proud of it. Oughta help people realize that a railroad is a darn fine way to travel all the time, instead a just when they're short on gas coupons.

And I'm *sold* on this Weldwood Plywood. I'm gettin' an estimate on puttin' some in my own house . . . got it all paid off now, and this Weldwood Plywood looks like a good way to spend some of the money I'll be gettin' from my war bonds in a couple of years.

Yes Sir! Weldwood Plywood sure lowered that Streamliner's nose . . . they wave at us now when they go past.

UNITED STATES PLYWOOD CORPORATION

55 West 44th Street, New York 18, N.Y.

Why Teletype-operated circuits are the most efficient!

The ability of Teletype apparatus to transmit clear, type-written messages by wire or radio—to the next room or around the world—has won high praise from the Army's Chief Signal Officer. Because Teletype messages can be relayed without being retranscribed, this method of communication is the fastest and most accurate.

The enormous volume of message traffic flashed over the Army's Teletype circuits is indicated by one rather staggering statistic. *The Washington Signal Corps Center alone uses some 96 miles of Teletype perforator tape per day!*

Of great value to the Armed Forces, too, has been Teletype's service on the nation's railroads—helping to speed the transportation of millions of men and mountains of material. We're glad that Teletype has a share in the magnificent job you are doing!

TELETYPE CORP.
Chicago, Illinois

**Buy more War Bonds
—and keep them!**

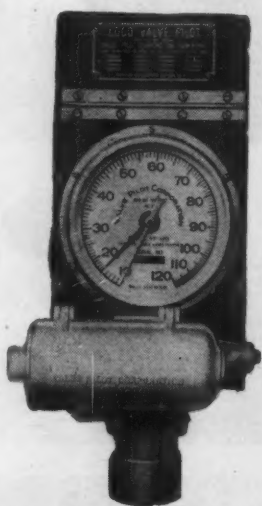
TELETYPE
1000-0-0 PAL OFF.

SUBSIDIARY OF
Western Electric Company
INCORPORATED



Then *and* Now

1837



1945



The first Rogers locomotive—"Sandusky"—was built for the Mad River and Lake Erie Railroad 108 years ago.

This year the New York Central, of which the Mad River Line is a part, offers the famous "6000" as the latest contribution to locomotive design.

With the Valve Pilot, her engineman makes the most effective use of this fine modern power while the tape record provides a detailed mile by mile report of the performance over the road.

VALVE PILOT CORPORATION

230 Park Avenue, New York 17, N. Y.

**THIS
FINE-GRAINED STEEL
IS
"ON THE MOVE"**



Inherently finer grain — achieved through the element zirconium . . . together with a balanced composition of carefully chosen alloying elements . . . gives N-A-X High-Tensile Steel properties and qualities that make it a natural choice for mobile equipment. More and more of this great low-alloy steel is "on the move" in the railroad, trucking and other transportation industries, in military vehicles of all types, in varied applications that place exacting demands on materials.

Each desirable characteristic of N-A-X High-Tensile Steel is being used to good advantage. Its greater strength is knocking out dead weight through lighter designs; its exceptional ductility permits fabrication in intricate shapes by efficient methods; its excellent weldability contributes to over-all strength, providing uniformly high resistance to strain and fatigue. We suggest that you get the facts on N-A-X High-Tensile Steel as they apply to your production.

**A
GREAT STEEL
FROM
GREAT LAKES**

GREAT LAKES STEEL
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N-A-X ALLOY DIVISION • DETROIT 18, MICHIGAN

UNIT OF NATIONAL STEEL CORPORATION

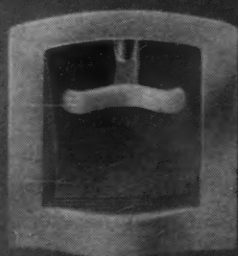
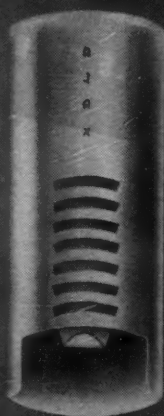
A PAPER CUP INSTALLATION as seen by

Peter Schladermundt

VAN DOREN, NOWLAND and SCHLADERMUNDT

New York

Philadelphia



One Hand Does It All!

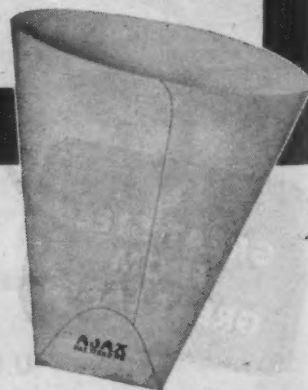
The approach here is simply to make a one-hand operation of taking and filling a drinking cup. We do it by using a push bar to control the water flow. Since the same hand holds the cup and pushes the bar, the water always hits the cup. Result: No spills, less waste. Passengers should like it because the other hand is left free to steady themselves.

AJAX, the oval wedge-shaped paper cup that nests 250 to the carton; withdrawn from its dust-tight dispenser open and ready to use — fits naturally into any hand, large or small — holds just enough water for a cool, refreshing drink.

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68 Prescott Street, Worcester 5, Mass.

PACIFIC COAST ENVELOPE CO., Division
416 Second Street, San Francisco 7, Calif.

Divisions of United States Envelope Company



Ajax PAPER DRINKING CUPS

Railway Age

With which are incorporated the Railway Review, the Railroad Gazette, and the Railway Age-Gazette. Name registered in U. S. Patent Office.

Vol. 118

April 14, 1945

No. 15

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Purchases in 1944 Greatest Since 1923 Page 657

In its Annual Statistical and Outlook issue on January 6, *Railway Age*, estimating 1944 purchases by Class I roads, came within 1.6 per cent of actual expenditures—A detailed analysis of these purchases, as compiled by the Association of American Railroads, is set forth herein.

Adapts Steam Facilities for Diesels 660

How the Atlantic Coast Line, in its backshop and enginehouse at Waycross, Ga., altered existing facilities to permit efficient Diesel shop operations, and effected the changes with a small cost and minimum use of critical materials.

Selection and Training of Supervisors 665

F. K. Mitchell, New York Central's assistant general superintendent, motive power and rolling stock, believes that care given to finding supervisors will largely determine future economic or costly operation. He suggests 10 reasons why the supervisory job has not been eminently attractive to a great many railroaders.

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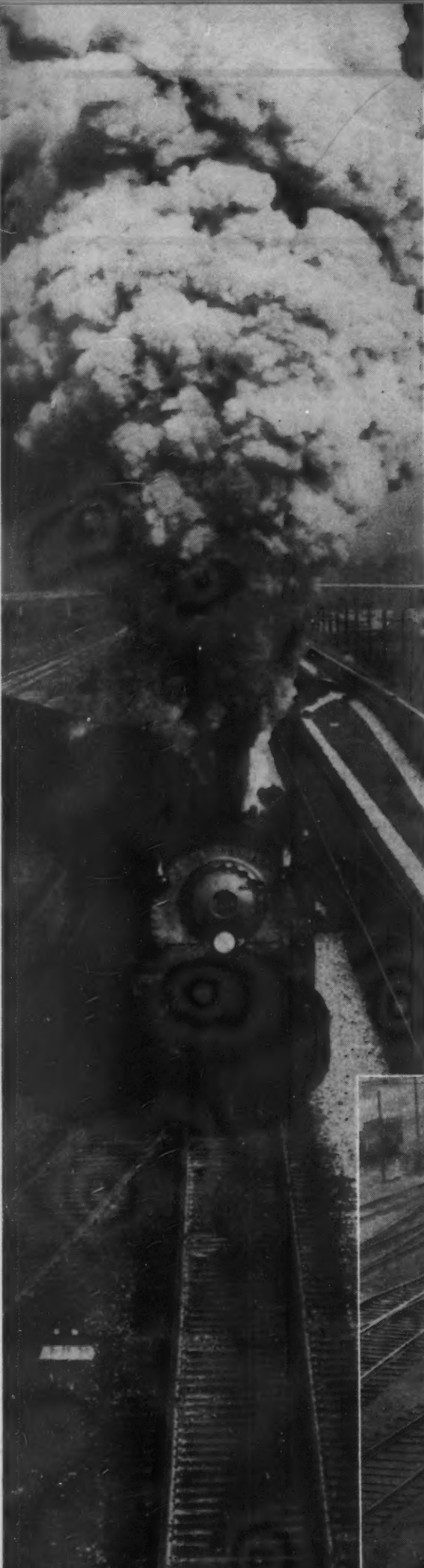
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The Railway Age is indexed by the Industrial Arts Index and also by the Engineering Index Service



PRINTED IN U. S. A.



Faster freight deliveries start in the yard

There is little doubt that shippers expect, as regular service, deliveries that approximate the "fast freight" schedules of today. Time from consignor to consignee will have to be reduced.

Increase in maximum train speeds is not a complete solution to that problem. All sources of lost time must be corrected to the greatest possible extent.

Classification is one of the major sources of lost yard time, and classification time may be cut as much as one-third by the use of Car Retarders. Each hour saved at a terminal will advance a car twenty miles or more.

Put yard modernization and "Union" Electro-pneumatic Car Retarders at the head of your list, in planning to meet the demands for faster service. Our engineers are at your service.

UNION SWITCH & SIGNAL COMPANY
SWISSVALE, PENNSYLVANIA



NEW YORK

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ST. LOUIS

SAN FRANCISCO



The Week at a Glance

HOLDING THE LINE: Under the operation of the wage stabilization program, the average annual compensation of railroad employees increased from \$1,825 to \$2,664, or 46 per cent, between 1940 and 1944. Straight-time pay, omitting overtime, increased from \$1,746 to \$2,296, or 31.5 per cent. Average straight-time hourly earnings increased from 70.6 cents to 89.8 cents, or 27.2 per cent. These data, and others appearing in the news pages this week, are from the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission.

CONFOUNDING COMPLACENCY: In the face of plain and repeated warnings from persons best qualified to know from experience what the wartime requirements of the railroads for equipment and materials and men would be, the government in Washington—acting through its manpower authorities and its War Production Board, and against the advice of its Office of Defense Transportation—has persistently kept the railroads on starvation rations, apparently depending on them to live on their fat so long as a fighting nation's critical and ever-growing need for transportation lasts. But—as is pointed out in an editorial this week—the ability of the railroads under such conditions to continue to give the armed services and the shippers of the country who desperately need it the kind of service they are accustomed to is becoming more and more doubtful. They will be taxed by the increased demands of the war in the Pacific so long as it continues after the European campaign tapers off. They will be taxed by the increasing diversions of miscellaneous freight from trucks that simply cease running. They are already taxed by the unparalleled volume of domestic freight, as is evidenced by the discussion in this issue of the grain car situation. Yet the government is still refusing to let the railroads buy the equipment and hire the help needed to mend their chronic and steadily deteriorating position.

SELECTING SUPERVISORS: Considerations that must be weighed in the future with more care than ever before when supervisors are picked and their training program is shaped are set forth succinctly in an article this week, prepared by F. K. Mitchell, assistant general superintendent motive power and rolling stock of the New York Central. One phase of the discussion is an enumeration of "crimes" of which management may be guilty, the result of which frequently is to discourage eligible men from accepting the responsibilities of supervisory positions.

HUMAN ELEMENT: An editorial this week sums up the basic facts underlying the railroads' train accident record, and points out how distorted and completely contradictory ideas about this matter, based on "sensational misinformation," prevail too frequently in the general public mind. The primary reason why no gadget or combination of gadgets can assure complete

avoidance of train accidents is emphasized; the operation of these devices, like the operation of the trains themselves, is, and must be, subject to human control to some degree, and the proneness of humanity to error thus inescapably becomes a factor in shaping the accident record.

A WAY OUT: Through its recently fructulose anti-trust division the Department of Justice apparently has undertaken to set the national economy to rights—or at least to shape it to the pattern of which the department's policy makers have become enamored. Not the least formidable of these moves is the attack on the rate-making machinery of the railroads. Whatever the purposes of this attack may possibly be, its actual result, if it is not brought up short in some way, will be either (1) to put small communities out of business or (2) to force private capital out of the railroad industry. The method by which the department would attain its purposes is unrestrained competition in making rates. The method by which the railroads can protect themselves, and thousands of small communities (and in no small measure the private enterprise system itself), from the unhappy fate to which the department's success would leave them, is set forth in the leading editorial this week. It is to obtain sufficient support to bring about enactment of legislation to protect properly sanctioned joint actions of carriers from anti-trust zealots.

MORE BERGE: According to Wendell Berge, the activities of the anti-trust division are motivated by a consuming desire to see the free private enterprise system flourish in this country, after the war, as it never has before. Adding new laurels to those he already had awarded himself for his vocal championship of this cause, he told a distinguished audience last week how to insure the abundant health and enduring life of this economic system. All will be well if unrestrained competition prevails, and particularly if it prevails in fixing freight rates. As the report of his speech in our news pages indicates, the assistant attorney general entertains no doubt that the freight rates so freely fixed would be much lower freight rates. Inadvertently no doubt, in his discussion of free private enterprise he failed to say anything about opportunity for profit, the distinctive element of the system that makes the whole thing click. He did say he wants new enterprises to grow, and old enterprises to flourish, so that full employment and full production will be realized. Of course, since this is his objective, he must particularly want one of the oldest and largest and most essential of all industries—the railroads—to flourish. To help them, to help strengthen the profit-energized private enterprise system, he would stretch the anti-trust laws to their limit, so that unrestrained competition would prevail, and lower freight rates would be fixed. The logic of this method of insuring the desired results might have escaped notice if Mr. Berge had not sponsored it.

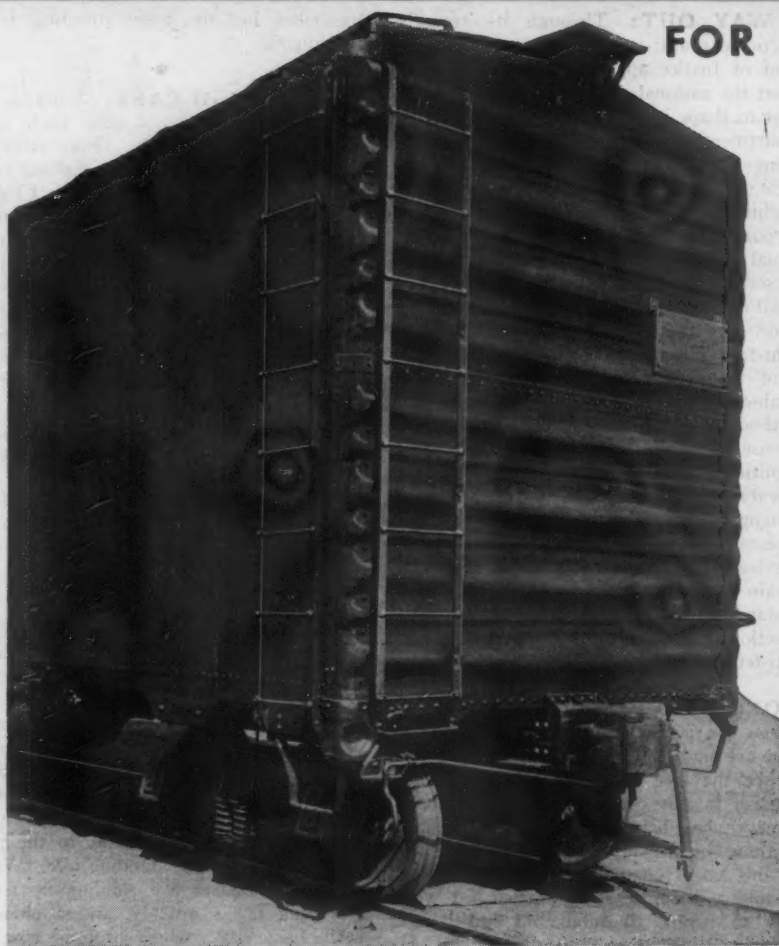
SOUTHERN GRAIN RATES: Years of effort on the part of the I. C. C. to fit the rate structure under which grain moves to and within the South to the desires of the shippers and the necessities of the railroads have resulted in a report, reviewed this week in the news pages, in which some downward adjustments in proportionals are prescribed but the basic structure is left unchanged.

NOT ENOUGH CARS: Mounting concern of the farmers and grain trade of the western states over the unfavorable car supply situation has found indignant recent expression in meetings in Kansas City and in protests to Washington. As reported in an article on page 662, almost 2,000 country elevators remain blocked, even though the A.A.R. Car Service Division has been able to report increasing success in its efforts to get eastern roads to send empty box cars west. In normal years, western roads are accumulating grain cars at this time, building up a back-log to meet the peak demands of the harvest season. This year there are not enough box cars to handle current business, partly because the far-sighted powers in Washington that allocate materials failed to provide enough for the railroads to make any substantial additions to their capacity.

CONSEQUENCES: And so the western roads not only are not able to get ahead of the situation in preparation for the new harvest; they are not able even to keep last year's crop moving to market in the volume that shippers demand. The winter's blizzards contributed to a dislocation of box car distribution, but the eastern roads are busy handling war freight, including grain moving on long hauls to the ports, and the cars are not standing idle. Weekly carloading figures are running up toward fall peak levels already, and a phenomenally large 1945 wheat crop is now predicted. As reported in the news pages, Car Service Chairman Kendall sees no likelihood of much relief for months to come.

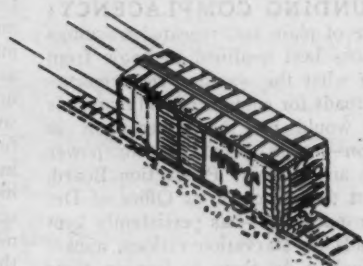
REVERBERATIONS: Congressmen from the grain states are expressing themselves freely about the insufficiency of box cars, and Senator Wheeler has set about conducting an investigation. A delegation from the West is due in Washington next week. Colonel Johnson meanwhile has shown some impatience with their demands. The railroads, in the middle of the cross-fire again, are not being spoken of in terms of unmixed praise. But, while words fly back and forth, new high records in getting freight to the ports for movement to the overseas battlefronts keep falling before newer, higher records. A.A.R. member roads, meeting in Chicago, threshed out some of their equipment difficulties, and various suggestions are under study, as a news story in this issue explains, to better the situation if, and to the extent that, the available cars can be more effectively employed.

IMPROVED DREADNAUGHT END

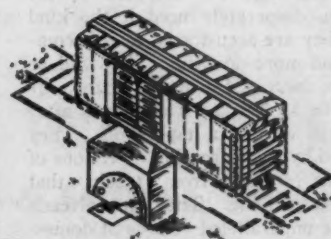


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RAILWAY AGE

Congress Can Still Be Boss

The general public, and probably most railroad men and shippers, are little aware of the harm to orderly business and the undermining of private enterprise in transportation threatened by rate-making practices which the Department of Justice is trying to force upon the railroads, by its attack, both in the courts and from the public platform, upon existing rate-making practices of long standing and general acceptance.

In substance, this attack is aimed at making it impossible for railroads to consult with each other, or with any shippers except those immediately involved, before filing with the Interstate Commerce Commission tariffs to change rates, regardless of the fact that the Commission has legal power to prevent any change in rates proposed. The Justice Department, in short, wants unrestricted competition by the railroads in proposing changes in rates, although this would make the Commission's task of passing on proposed changes almost impossible, would cause a great increase in the unfair discriminations between communities and shippers the prevention of which always has been the principal purpose of the Interstate Commerce Act, and probably would ruinously reduce the earnings of the railways and of all competing carriers by water and highway.

It is difficult for the railroads to make their position on this question understandable to the lay public because the prohibition by the anti-trust act of price agreements by industries which are not regulated as the railroads are is entirely sound. The important point is that the railroads are regulated as other industries are not, and this makes all the difference in the world in the way that sound economics requires that the railroads should go about pricing their product.

What the Justice Department Seeks

The railroads are limited by Interstate Commerce Act to earnings barely sufficient to enable them to give satisfactory service. No other industry has its earnings thus limited. Whenever the railroads earn more, or apparently may earn more, than the Interstate Commerce Commission considers necessary, it so regulates their rates as to restrict their earnings under the provision of the law which directs it to consider the public need for "adequate and efficient railway transportation service at the lowest cost consistent with the furnishing of such service."

Thus it is impossible for the railways to exact from the public a higher average rate than the Commission believes they need. But how is the required average rate to be attained? There are several conceivable ways of attaining it. One of them is to cut rates clear down to bare costs or below where competition exists and make

up the difference by making rates much higher than the average where there is no competition. The Justice Department is seeking to destroy the mechanism by which rates for railroad service where competition exists are prevented from going below remunerative levels. But it does not concern itself with the effect that such profitless rates may have on the rates charged at non-competitive points. Either (1) it does not object to rates at such points being greatly increased to compensate for the unprofitable rates which it is striving to force the railroads to make where competition exists, or (2) it hopes to force down railroad earnings below the level where the railways can continue to provide adequate service to the public as a self-sustaining and privately financed enterprise.

Armed with a Legal Doubt

The larger communities have competitive railroad service, but thousands of small communities are served by only one railroad. Therefore, if it be alternative (1), as set forth above, which the Justice Department chooses, what it is trying to do is to put all the smaller communities of the country at a ruinous disadvantage in competition with the larger ones. If alternative (2) be its selection, then it is endeavoring so to impoverish the railroads that, in order to continue satisfactory service to the public, they will have to fall into the clutches of administration politicians by seeking the support of the federal treasury. There is no escape from these two alternatives. One or the other is the objective of the Justice Department, and it is safe to assert that neither one conforms to the desires of the great majority of the American people.

It is possible for the Justice Department to raise this issue both in the courts and in the forum of public discussion because the anti-trust law does not explicitly state that its provisions do not apply to "natural monopolies" which, because of their nature, are subjected to special government regulation, although provisions of the Interstate Commerce Act enacted since the anti-trust law clearly enjoin the avoidance of "unfair and destructive competitive practices" in transportation. Moreover, the Interstate Commerce Commission in its 1944 annual report noted that "until about five years ago the view was rather generally held that for all the wrongs for which the parties are afforded a remedy by terms of the Interstate Commerce Act, to that extent the Interstate Commerce Act supersedes the anti-trust laws." The Justice Department takes a different view and, armed with a legal doubt, has embarked upon an all-out campaign either (1) to put producers and shippers in small communities at a great competitive disadvantage or out

of business, or (2) to put an end to private enterprise in the railroad industry.

There would be small danger that this effort would succeed if there had not been such a change in the personnel and philosophy of the federal courts in the past decade that, nowadays, any litigation seems to be a gamble. Congress, however, has not as yet been denied the power to put to rights such situations as this; and a bill now pending in the House, H.R. 2536 (introduced by Congressman Bulwinkle and reviewed in the *Railway Age* of March 17, page 522) will, if enacted, do this, by staying the application of the anti-trust law to any inter-carrier agreement which has Interstate Commerce Commission sanction. If the public were fully informed on what is involved, it would quickly give this legislation support which would insure its early enactment.

Railroads Facing Their Most Difficult War Problems

The prolonged severe weather last winter, especially in the northeastern part of the country, presented the railways the most difficult problem they had had during the war, and left them with a situation which it will take months fully to rectify.

Throughout 1944 they were struggling with a volume of freight with which it was becoming increasingly difficult to cope. Man-power was chronically inadequate. Freight cars in bad order tended to increase. Loading per car tended to decline. Ton-miles of service rendered in every month in the last six months of the year were less than in 1943. While apparently being operated with the utmost efficiency that conditions permitted, the railroad machine seemed not quite equal to the demands being made upon it.

The severe weather, which began unusually early and lasted unusually long without a break, almost stopped freight operation in some territories and, by the conditions it caused there, indirectly slowed down the movement of traffic in most other parts of the country. Total ton-miles of service rendered declined from 60½ billion in January, 1944, to 57 billion in January, 1945, or about 6 per cent, and in February declined from more than 59 billion to 53 billion, or almost 11 per cent. The importance of these figures is in the contrast they present to the very large increases in traffic handled that were achieved in 1941, 1942 and 1943, as a result of which the freight service rendered in 1943 was 95 per cent larger than in 1940.

Owing to increases in loading per car and in length of haul per ton, ton-mileage increased relatively much more than car-loading during the early war years; but increases and decreases in car-loadings and ton-miles are now almost paralleling each other, the increase in loadings in 1944 having been 2.4 per cent and the increase in ton-mileage 1.7 per cent. Hence car-loadings have again become a good approximate measure of the amount of freight service being rendered. Car-loadings were less in nine of the first ten weeks of this year than last year; but they increased in each of the three weeks ending with April 4. These facts indicate that the rail-

ways are recovering from the effects inevitably produced by the long period of very severe weather.

But their ability to handle traffic satisfactorily during the rest of the war, especially with Japan, is doubtful. Because trucks are breaking down all over the country, increasing amounts of l.c.l. and miscellaneous freight are being diverted to the railways. Worse still, cessation of the war in Europe will cause a huge increase in the demand for transportation to the Pacific Coast to aid in carrying on the war with Japan. It is doubtful if the railways can handle all the west-bound traffic that will be available; and it is still more doubtful if the railroads, the Pacific ports and the ships will each of them be found equal to the increased demands of war in the Pacific. Meantime, the railroads are confronted with some critical domestic situations, such as the need for cars to move wheat from the southwest.

The government has properly spent immense sums on shipbuilding. But at the same time the government has persistently refused, and is still refusing, to let the railroads buy and employ with their own money anywhere near as much equipment, materials and manpower as it has been urged year after year by its own Office of Defense Transportation to let them have. The railroads are not "falling apart" as an unfriendly participant in a recent round table on the radio asserted. But the railroads are finding the going harder and harder—much harder than it would have been if the government, by letting them buy needed locomotives, cars and materials, and keep needed man-power, had recognized the plain fact that it is as necessary, in carrying on a foreign war, to provide enough transportation to maintain enough production at home, and to move troops and their supplies and equipment to the water's edge, as it is to move troops, supplies and equipment from the ports to the battle-fronts.

Keep It Simple!

In the discussion which followed the delivery of a paper at the January meeting of the Southern and Southwestern Railway Club by W. D. Quarles, master mechanic of the Atlantic Coast Line, on the subject of operation of Diesel-electric locomotives, the speaker was asked to express his opinion concerning an accessory device intended to protect such locomotives against damage resulting from an operator's carelessness or oversight. The speaker's reply is quoted here in full: "The Diesel engine is made up of a good many parts. I have always personally been opposed to putting on another gadget which is going to require additional maintenance to overcome the results of somebody's faulty operation. My advice would be to load our Diesel engines consistent with their ability to haul, being guided by the manufacturer's recommendations, and then require your men to carry out instructions and keep these unnecessary gadgets off the locomotive. That is my candid opinion."

The Diesel-electric locomotive today is attracting the attention of specialty manufacturers interested in developing marketable products. Some, in fact many, of the developments made outside the plants of the locomotive manufacturers have merit and are of such

value in improving performance or benefiting operation in other ways that manufacturers are applying them initially as standard equipment or are installing certain specialties at the request of the purchasers. They are not the gadgets to which Mr. Quarles refers. Gadgets to him are those things which increase maintenance costs on locomotives without comparable return in performance. His point is well taken and does not at all imply that accessories intended to improve performance are to be classed as gadgets.

Classified somewhat differently, one might paraphrase Mr. Quarles' remarks and say that gadgets are things intended to protect supervision against its failure to fulfill its functions. Intelligent instruction of engine crews in the capacities and limitations of the equipment given them to operate, followed up at intervals with check-up or refresher instructions, will eliminate the need for protecting train crews against doing the things they would not do if they had been properly instructed. And, the fewer the gadgets, the fewer the possibilities for error, the fewer the items for inspection and overhaul, and the cheaper and simpler the whole problem of Diesel-electric locomotive operation and maintenance.

Box Cars for Grain

The wheat growing states are staging a small rebellion over what they consider an impending car shortage of serious proportions at harvest time. Ordinarily, at this season of the year, a steadily increasing number of empty box cars is parked on the sidings in the wheat-growing areas, ready for the new crop. The fact that because of the dislocation of cars brought about by severe winter conditions and the urgent demand for cars for war freight, there is no such backlog of empties available is greatly disturbing to many people involved in the wheat trade, as well as to politicians looking out for the interests of their constituents.

These people recently called the situation to the attention of the Director of Defense Transportation, Col. Johnson, in forceful language and he promptly informed them that their demands were "presumptuous." As a matter of fact, in war-time with every car so badly needed it does appear that several thousand empty cars should not be held idle for weeks awaiting movement, but that is the only way the railways have hitherto found it possible to handle the wheat rush.

The Effigy Isn't a Very Accurate Likeness



This year, too, the heavy movement of export wheat from the stored crops of preceding years has had the effect of draining cars from the territory as fast as they arrive and sending them on long hauls. Whatever the reason, the cars are not now in the territory and on April 10, at the instigation of the governors of the wheat-growing states, an "indignation meeting" on the subject was held in Kansas City, attended by all concerned, the railways participating to the extent of having representatives in attendance by invitation, as interested observers.

Except to render protests, just what it was hoped to accomplish by such a meeting is not clear. Despite Col. Johnson's sharp reply to previous protests, the O. D. T. is not insensible to the situation. An increasing number of empties is rolling through the Chicago and St. Louis gateways on the way to the West. Insofar as possible, the export grain is being shipped to the Gulf ports to shorten the length of the haul.

The Car Service division of the A. A. R., comprised of experienced veterans in many a hard struggle to supply cars for wheat loading, is watching the situation and taking such steps as are possible to relieve it. Moreover, the individual railways are doing everything they can about it. For example, experiments conducted two years ago proved that it is feasible to handle grain in open-top cars. The Santa Fe is making good use of such cars now, 568 of them having been loaded with wheat during the week ending March 31 alone. For short hauls, it is not necessary to protect the grain against blowing out of the cars in transit. The Santa Fe is also using open-top cars for wheat between Enid, Okla., and the Gulf ports. For such long hauls, grain doors are placed on top of the lading.

Such cars can also be moved through fairly heavy rainstorms without serious damage to their contents.

Whatever the outcome of the disagreement between the O. D. T. and the wheat interests, it is the railways which will have to handle the traffic. Col. Johnson states that the railways will be able to deal with the wheat rush this year just as they always have in the past. The remarkable ingenuity they have displayed in the conduct of war-time transportation is a persuasive reason for believing that he is right.

"Railroad Wrecks Can Be Averted"

The periodical, "Magazine Digest," in its April issue contains an article entitled "Railroad Wrecks Can Be Averted" which is credited as "adapted from *Railway Age*." A subheading to the article succinctly summarizes its tenor as follows: "Obsolete air brakes, primitive journal bearings, absence of automatic block signals and train-stop devices, and of even the simplest 'block system' have caused the majority of train accidents."

The "Magazine Digest" also associates the name of W. R. Triem, general superintendent of telegraph of the Pennsylvania Railroad, with the article which, it is said, was "adapted from *Railway Age*"—but only about one-sixth of the "Magazine Digest" article is devoted to the experiments with train communication on the P. R. R.'s Belvidere branch, which Mr. Triem described in *Railway Age*. The remaining five-sixths of the article sets forth opinions which are summarized in the subheading quoted in the preceding paragraph. Railroad people will realize that such conclusions are not those of either Mr. Triem or the *Railway Age*. "Magazine Digest" has acknowledged the inaccuracy of its attribution of such views to us and to Mr. Triem, and has advised that in a forthcoming issue it will publish a corrected report on the source of the expression erroneously attributed to us.

The facts of railroad safety—both the accomplishment and the problem—are about as far removed as they could possibly be from the discussion of them by sensational writers and radio commentators. These sensationalists have directly or implicitly created at least three utterly false impressions regarding safety on the railroads, viz.,

1. That the railroad safety record is bad,
2. That train accidents are the principal source of casualties and that train accidents are, for the most part, collisions between trains, and
3. That the railroads could greatly improve their safety record and perhaps attain perfection if they were not so backward in the adoption of gadgets to give additional warnings against collisions.

The basic facts in contradiction to the foregoing sensational falsifications are as follows:

1. There were 7,233 persons killed and 171,659 persons injured from all causes on the railroads in 1923, and 4,942 persons killed and 60,317 injured in 1943—with freight traffic 76 per cent greater and passenger traffic 132 per cent greater in 1943 than in

1923. Railroad safety is not declining; excepting minor temporary deviations, its secular trend has shown spectacular improvement.

2. Of the 4,942 persons killed on the railroads in 1943, only 522, or less than 11 per cent, lost their lives in train accidents, and only 131, or less than 3 per cent of all fatalities, resulted from collisions. Of the 60,317 persons injured on the railroads in 1943, the percentage attributable to train accidents was less than 7 per cent, and to collisions about 3 per cent. The sensational critics of railroad safety performance seldom direct attention to anything except train accidents, which, they assert, would have been prevented if the railroads had installed all the signaling and radio protection which is available—in the laboratory if not in manufacturers' warehouses. Such devices could be little if any help in diminishing train accidents except those involving collisions. The net effect, therefore, is that sensationalist publicity on railroad casualties is directing its barrage at 3 per cent of railroad fatalities and is putting political pressure on railroad managements to divert their available resources and their attention away from the causes of 97 per cent of railroad fatalities, to lavish all their ingenuity and means upon 3 per cent of them.

3. No mechanical, electrical or electronic device is, per se, a preventive of accidents, and manufacturers who are familiar with railroad conditions do not make such a claim for these products. Instead, both the manufacturers and railroad managements regard these devices as aids to railroad operation, which are justifiable or not in particular situations, depending upon the nature and volume of traffic and other attendant circumstances. The point is that none of these devices will prevent accidents if employees neglect to heed their warnings. There is no device yet invented which makes "fool-proof" railroad operation practicable, i.e., there is no device which does not call for fallible human intervention in order to give effect to its contribution to the safety of trains. Moreover, no train lacks protection in the absence of "modern safety devices." The operating rules in effect where there is no automatic signaling provide for train protection which is as complete as that obtainable with signals if the rules are scrupulously obeyed; and signals and electronic devices are, in turn, effective as safety devices only to the extent that railroad personnel is schooled to heed their warnings.

Informed attention to railway safety by the popular press is legitimate and promotive of the public interest. The railroads as well as their employees and the public will benefit as press attention keeps them on their toes, and urges them on to continue improved performance. But sensational misinformation is harmful to everybody—especially so if it builds up political pressure to force the railroads to divert their concern from sectors where the major fatalities are occurring, forcing them to concentrate all their efforts and resources in fields where the harvest in accident reduction can be only meager. Such misdirected public clamor, by diverting the efforts of railroad managements away from fruitful areas of accident prevention, might easily serve to increase rather than diminish the total number of casualties which occur on the railroads.

Purchases in 1944 Greatest Since 1923

Class I roads spend \$1,610,529,000 for materials, supplies and fuel — Capital expenditures for new equipment, roadway and structures top half-billion

PURCHASES of materials, supplies and fuel, excluding new locomotives and cars, by Class I railroads of the United States in 1944 totaled \$1,610,529,000, an increase of 15½ per cent compared with 1943, and greater than for any year since 1923, when purchases reached \$1,738,703,000, according to a recent announcement by J. J. Pelley, president of the Association of American Railroads, which was noted briefly in the *Railway Age* of April 7, page 635. The preliminary estimated total prepared by *Railway Age* and published in the Annual Statistical and Outlook Number on January 6, 1945, was within 1.6 per cent of actual expenditures.

Increased Volume of Purchases

Gross capital expenditures for new equipment, for improvement to equipment in service, for additions and improvements to roadway and structures, to Class I railroads in 1944 totaled \$560,112,000, which was \$105,830,000 or 23 per cent more than for 1943 and the greatest for any year since 1930. Last year's increase in purchases was due in part to higher prices, which averaged about three per cent greater in 1944 than in 1943, but by far the greater part of the increase was due to the greater volume purchased. Purchases of materials and supplies from manufacturers amounted to \$1,024,697,000, or 18 per cent more than in 1943, the greatest amount spent for manufactured products in any year in the last two decades.

Purchases of fuel also reached a new peak in 1944 when they amounted to \$585,832,000, an increase of 11 per cent over the previous year and the greatest annual expenditure within this classification since 1923.

The A. A. R. compilation of purchases represents the delivered cost of materials received from commercial firms and includes materials obtained by Class I railroads to build new locomotives and cars in railway shops, but not the value of new equipment purchased from commercial builders. A measure of expenditures for new equipment is presented later in this article in an analysis of gross capital expenditures. All figures are restricted to the railways of this country and exclude all purchases by war agencies or military forces for building, rebuilding and operating railways in this and other countries. Moreover, these purchase figures do not include the cost of equipment, materials and machinery purchased by contractors for railway construction and neither do they include the expenditures railways make for heat, light, power and other utility services.

Half Billion for Steel

Purchases of iron and steel products, as a whole, showed the sharpest increase in any general material classification and reached a new high of \$526,608,000, an increase of 28 per cent compared with the previous year, 21 per cent more than for 1942 and 14 per cent more than for 1941. Another outstanding feature in

this respect is that every item within the iron and steel category showed a substantial increase in 1944 and reflected the easing of controls, in sharp contrast to the more stringent control of iron and steel products during 1943, particularly during the first half of that year.

Class I roads spent \$66,114,000 for locomotive and car castings, beams, couplers, frames and car roofs compared with \$49,440,000 or nearly 34 per cent more than in the preceding year. Expenditures for wheels, axles and tires amounted to \$48,791,000 compared with \$44,550,000, an increase of 9½ per cent over 1943. An increase of almost 25 per cent occurred in expenditures for bar iron and steel, spring steel, tool steel, unfabricated roller shapes, wire belting and chain; boiler, firebox, tank and sheet iron and steel, which amounted to \$36,044,000 compared with \$28,868,000 for the preceding year.

The railways also spent almost 36 per cent more for air brake material in 1944 when purchases amounted to \$29,248,000 compared with \$21,552,000 in the previous year. Expenditures for car forgings, iron and steel and fabricated or shaped steel for passenger and freight cars leaped almost 80 per cent over 1943 figures and amounted to \$20,344,000 compared with \$11,367,000.

For standard and special mechanical appliances for locomotives the railways spent \$21,206,000 last year compared with \$18,478,000 in 1943. Purchases of small machine tools, power tools and hand tools such as drills, taps, reamers, dies, and chasers increased 35 per cent and amounted to \$13,821,000. Expenditures for bolts, nuts, washers, rivets, lag screws, pins and studs amounted to \$13,452,000, an increase of 17 per cent over the \$11,481,000 for 1943.

Power-Driven Shop Machinery

Class I roads in 1944 spent \$7,732,000 or 20 per cent more for flues and tubes for locomotive and stationary boilers; \$5,869,000 was spent for helical and elliptical springs of all kinds for locomotives and cars, while purchases of forgings and pressed steel parts for locomotives increased 45 per cent and amounted to \$4,933,000.

Expenditures for power-driven shop machinery more than doubled in 1944 and reached \$8,842,000, compared with \$4,383,000 in the previous year. Additional expenditures for machinery, boilers, repair parts and all other iron and steel products increased almost 50 per cent and amounted to \$17,009,000 com-

Table I

Annual Purchases of Materials and Supplies (Excluding Equipment) 1923-1944†

| Year | Class I Railroads | | | | | Total Less Fuel (000) |
|------------|-------------------|-----------------------------|-----------------------------------|------------------------|----------------|-----------------------------|
| | Fuel (000) | Forest Products (000) | Iron & Steel Products (000) | Miscellaneous (000) | Total (000) | |
| 1923..... | \$617,800 | \$232,511 | \$464,955 | \$423,437 | \$1,738,703 | \$1,120,903 |
| 1924..... | 471,656 | 180,872 | 365,610 | 324,917 | 1,343,055 | 871,399 |
| 1925..... | 459,465 | 170,305 | 419,255 | 343,018 | 1,392,043 | 932,578 |
| 1926..... | 473,354 | 186,291 | 507,302 | 392,085 | 1,559,032 | 1,085,678 |
| 1927..... | 438,821 | 175,729 | 432,604 | 348,774 | 1,395,928 | 957,107 |
| 1928..... | 384,608 | 160,794 | 397,544 | 328,395 | 1,271,341 | 886,733 |
| 1929..... | 364,392 | 157,771 | 437,840 | 369,752 | 1,329,535 | 965,143 |
| 1930*..... | 306,500 | 134,600 | 329,700 | 167,700 | 1,038,500 | 732,000 |
| 1931*..... | 224,200 | 75,500 | 220,000 | 175,300 | 695,000 | 470,800 |
| 1932*..... | 178,250 | 52,200 | 100,550 | 114,000 | 445,000 | 266,750 |
| 1933..... | 180,526 | 42,442 | 120,446 | 122,436 | 465,850 | 285,324 |
| 1934..... | 217,294 | 64,271 | 172,094 | 146,565 | 600,224 | 382,930 |
| 1935..... | 232,723 | 57,367 | 156,914 | 146,021 | 593,025 | 360,302 |
| 1936..... | 272,270 | 76,683 | 273,753 | 180,715 | 803,421 | 531,151 |
| 1937..... | 294,293 | 104,707 | 359,409 | 207,974 | 966,383 | 672,090 |
| 1938..... | 243,783 | 56,968 | 152,176 | 130,355 | 583,282 | 339,499 |
| 1939..... | 257,273 | 69,971 | 273,968 | 168,102 | 769,314 | 512,041 |
| 1940..... | 273,556 | 82,185 | 315,048 | 183,674 | 854,463 | 580,907 |
| 1941..... | 349,765 | 103,771 | 456,147 | 251,591 | 1,161,274 | 811,509 |
| 1942..... | 426,335 | 115,227 | 433,089 | 285,160 | 1,259,811 | 833,476 |
| 1943..... | 527,296 | 150,255 | 410,803 | 305,927 | 1,394,281 | 866,985 |
| 1944..... | 585,832 | 158,957 | 526,608 | 339,132 | 1,610,529 | 1,024,697 |

† As compiled by Association of American Railroads.
* *Railway Age* estimates.

Table II
Classified Purchases of Fuel, Materials and Supplies (Equipment Excluded)
Class I Railways—Years 1944 and 1943

| Item | 1944 (000) | 1943 (000) | Per Cent Change |
|--|--------------------|--------------------|--------------------|
| Fuel: | | | |
| Bituminous coal | \$429,497 | \$375,398 | + 14.4 |
| Anthracite coal | 4,125 | 3,715 | + 11.0 |
| Fuel oil | 139,598 | 136,905 | + 2.0 |
| Gasoline | 6,142 | 5,782 | + 6.2 |
| All other (coke, wood, fuel for illumination) | 6,470 | 5,496 | + 17.7 |
| Total Fuel | \$585,832 | \$527,296 | + 11.1 |
| Forest Products: | | | |
| Cross ties (treated & untreated) | 85,202 | 83,402 | + 2.1 |
| Switch and bridge ties (treated & untreated) | 13,174 | 9,469 | + 39.1 |
| Lumber, including timber (bridge & building, equipment, rough & finished lumber) | 52,288 | 47,623 | + 9.8 |
| Other forest products | 8,293 | 9,761 | - 15.0 |
| Total Forest Products | \$158,957 | \$150,255 | + 5.8 |
| Iron and Steel Products: | | | |
| Steel rail (new & second hand except scrap) | \$75,763 | \$60,074 | + 26.1 |
| Wheels, axles & tires | 48,791 | 44,550 | + 9.5 |
| Frogs, switches & crossings & parts of same | 26,114 | 22,919 | + 13.9 |
| Track fastenings, track bolts, spikes, etc. | 55,229 | 43,804 | + 26.0 |
| Iron bridges, turntables & structural steel, all kinds | 4,348 | 3,827 | + 13.6 |
| Bar iron & steel, spring steel, tool steel, unfabricated rolled shapes, wire netting & chain except light coil, boiler, firebox, tank, & sheet iron & steel, all kinds | 36,044 | 28,868 | + 24.8 |
| Forgings & pressed steel parts for locomotives | 4,933 | 3,414 | + 44.5 |
| Car forgings, iron & steel and fabricated or shaped steel, for passenger & freight cars | 20,344 | 11,367 | + 78.9 |
| Flues & tubes for locos, & stationary boilers | 7,732 | 6,450 | + 20.0 |
| Interlocking & signal material | 23,147 | 18,152 | + 27.5 |
| Telegraph, telephone & radio material | 4,636 | 2,832 | + 63.7 |
| Bolts, nuts, washers, rivets, lag screws, pins & studs | 13,452 | 11,481 | + 17.2 |
| Springs, helical & elliptical, all kinds for locomotives & cars | 5,869 | 5,592 | + 4.9 |
| Locomotive & car castings, beams, couplers, frames & car roofs | 66,114 | 49,440 | + 33.7 |
| Track & roadway tools all kinds, miscellaneous track material & wire fencing. Motor, hand, push & velocipede cars & parts for same | 11,599 | 8,440 | + 37.4 |
| Machinery & repair parts, including all power driven shop machinery | 8,842 | 4,383 | +101.7 |
| Machinery, boilers, repair parts & all other iron & steel products | 17,009 | 11,384 | + 49.4 |
| Pipe, iron & steel & fittings, all kinds | 8,726 | 7,118 | + 22.6 |
| Hardware, all kinds, including nails | 6,962 | 6,255 | + 11.3 |
| Hand & small machine tools, such as drills, taps, reamers, dies, chasers, including air tools & parts | 13,821 | 10,265 | + 34.6 |
| Air brake material | 29,248 | 21,552 | + 35.7 |
| Standard & special mechanical appliances for locos. | 21,206 | 18,478 | + 14.8 |
| Automotive equipment & supplies | 16,679 | 10,158 | + 64.2 |
| Total Iron and Steel Products | \$526,608 | \$410,803 | + 28.2 |
| Miscellaneous: | | | |
| Cement | 3,613 | 3,026 | + 19.3 |
| Lubricating oils & grease, illuminating oils, boiler compound, waste | 30,913 | 30,468 | + 1.4 |
| Non-ferrous metal & non-ferrous metal prod. | 35,853 | 29,544 | + 21.3 |
| Ballast | 20,582 | 19,509 | + 5.5 |
| All electrical materials | 27,338 | 19,783 | + 38.2 |
| Stationery & printing | 22,314 | 20,258 | + 10.1 |
| Commissary supplies for dining cars, camps & restaurants | 59,373 | 56,417 | + 5.2 |
| Rubber & leather goods | 7,899 | 6,412 | + 23.2 |
| Glass, drugs, chemicals, including chemicals for timber treatment, painters' supplies | 40,100 | 38,852 | + 3.2 |
| Arch brick for locomotives | 3,966 | 3,970 | - 0.1 |
| Passenger car trimmings | 8,443 | 7,631 | + 10.6 |
| Locomotive, train & station supplies | 24,782 | 22,463 | + 10.3 |
| All other miscellaneous purchases | 53,956 | 47,594 | + 13.4 |
| Total Miscellaneous Purchases | \$339,132 | \$305,927 | + 10.8 |
| Grand Total | \$1,610,529 | \$1,394,281 | + 15.5 |

pared with a total of \$11,384,000 in 1943.

Purchases of lubricants, boiler compound and waste amounted to \$30,913,000, a slight increase over 1942's \$30,468,000. Expenditures for arch brick for locomotives remained almost stationary and amounted to \$3,966,000. Commissary supplies increased 5 per cent over 1943 and amounted to \$59,373,000; locomotive, train and station supplies amounted to \$24,782,000, an increase of 10 per cent compared with 1943.

\$328,231,000 for Equipment

As a measure of expenditures for new equipment purchased from manufacturers, for equipment built in railway shops and for improvements to equipment in service, the A. A. R. announced recently that gross capital expenditures made by Class I railways in 1944 for those pur-

poses amounted to \$328,231,000, an increase of \$72,250,000 or 29 per cent compared with 1943 and approached within 6 per cent of similar expenditures in 1942. Of the 1944 expenditures 54 per cent went for locomotives, 41 per cent went for freight-train cars, 0.6 per cent was for passenger-train cars and the remainder for other equipment.

Capital expenditures for locomotives in 1944 totaled \$178,017,000, an increase of 25 per cent over the \$142,070,000

Table III
Gross Expenditures for Additions and Betterments to Railway Property†
Class I Railways in the United States—Years 1921-1944

| Year | Total equipment (000) | Total roadway & structures (000) | Grand total (000) |
|------|-----------------------|----------------------------------|-------------------|
| 1921 | \$319,874 | \$237,161 | \$557,035 |
| 1922 | 245,509 | 183,764 | 429,273 |
| 1923 | 681,724 | 377,425 | 1,059,149 |
| 1924 | 493,509 | 381,135 | 874,644 |
| 1925 | 338,114 | 410,077 | 748,191 |
| 1926 | 371,922 | 513,164 | 885,086 |
| 1927 | 288,701 | 482,851 | 771,552 |
| 1928 | 224,301 | 452,364 | 676,665 |
| 1929 | 321,306 | 532,415 | 853,721 |
| 1930 | 328,269 | 544,339 | 872,608 |
| 1931 | 73,105 | 288,807 | 361,912 |
| 1932 | 36,371 | 130,823 | 167,194 |
| 1933 | 15,454 | 88,493 | 103,947 |
| 1934 | 92,005 | 120,707 | 212,712 |
| 1935 | 79,335 | 108,967 | 188,302 |
| 1936 | 159,104 | 139,887 | 298,991 |
| 1937 | 322,877 | 186,916 | 509,793 |
| 1938 | 115,408 | 111,529 | 226,937 |
| 1939 | 133,388 | 128,641 | 262,029 |
| 1940 | 271,906 | 157,241 | 429,147 |
| 1941 | 367,568 | 175,453 | 543,021 |
| 1942 | 349,374 | 185,523 | 534,897 |
| 1943 | 255,981 | 198,301 | 454,282 |
| 1944 | 328,231 | 231,881 | 560,112 |

† As compiled by Association of American Railroads.

spent for that purpose in 1943, and compared with \$113,834,000 in 1942, \$80,607,000 in 1941, \$54,351,000 in 1940, \$42,807,000 in 1939 and \$208,966,000 in 1923.

The year 1944 saw an increase of 37 per cent in capital expenditures for freight-train cars and amounted to \$134,533,000 compared with \$97,890,000 in 1943, \$201,112,000 in 1942, \$245,713,000 in 1941, \$189,629,000 in 1940 and \$66,779,000 in 1939.

A new low in capital expenditures for

Table IV
Gross Capital Expenditures (In Thousands) on Railway Property—1940 to 1944†
Class I Railways in the United States

| Item | 1944 | 1943 | 1942 | 1941 | 1940 |
|--|------------------|------------------|------------------|------------------|------------------|
| Equipment | | | | | |
| Locomotives | \$178,017 | \$142,070 | \$113,834 | \$80,607 | \$54,351 |
| Freight-train cars | 134,533 | 97,890 | 201,112 | 245,713 | 189,629 |
| Passenger-train cars | 1,921 | 5,828 | 24,075 | 29,544 | 18,417 |
| Other equipment | 13,760 | 10,193 | 10,353 | 11,704 | 9,509 |
| Total Equipment | \$328,231 | \$255,981 | \$349,374 | \$367,568 | \$271,906 |
| Roadway and Structures | | | | | |
| Additional main track* | \$20,616 | \$18,493 | \$6,235 | \$3,781 | \$3,385 |
| Yards and sidings | 36,666 | 39,254 | 43,330 | 25,374 | 14,233 |
| Heavier rail | 35,720 | 32,227 | 33,100 | 36,108 | 30,473 |
| Additional ballast | 6,997 | 6,229 | 5,487 | 5,635 | 4,994 |
| Shops and engine houses** | 28,131 | 15,615 | 13,623 | 13,920 | 11,074 |
| Station and office buildings and other station facilities | 13,433 | 10,320 | 10,623 | 11,251 | 7,891 |
| Bridges, trestles and culverts | 25,088 | 20,673 | 21,471 | 19,419 | 22,596 |
| Signals & interlockers, including telephone & telegraph lines, automatic train control, etc. | 22,091 | 16,041 | 16,261 | 13,439 | 10,275 |
| All other improvements | 43,139 | 39,449 | 35,393 | 46,526 | 52,320 |
| Total Roadway & Structures | \$231,881 | \$198,301 | \$185,523 | \$175,453 | \$157,241 |
| Grand Total | \$560,112 | \$454,282 | \$534,897 | \$543,021 | \$429,147 |

† As compiled by Association of American Railroads.

* Additional track includes rail and tie fastenings and other track material.

** Shops and engine houses includes machinery and tools.

Table V
Gross Capital Expenditures (In Thousands) on Railway Property—1944†

| Item | Class I Railways in the United States | | | | |
|---|--|--|--|---|--|
| | Unexpended authorizations brought over from 1943 A | Additional authorizations during year 1944 B | Total amount authorized including carry-over from 1943 C = A + B | Amount expended during year 1944 D | Carry-over of unexpended authorizations to 1945 E = C - D |
| Equipment: | | | | | |
| Locomotives | \$125,015 | \$131,410 | \$256,425 | \$178,017 | \$78,408 |
| Freight-train cars | 73,409 | 137,005 | 210,414 | 134,533 | 75,881 |
| Passenger-train cars | 2,925 | 24,743 | 27,668 | 1,921 | 25,747 |
| Other Equipment | 5,830 | 18,668 | 24,498 | 13,760 | 10,738 |
| Total Equipment | \$207,179 | \$311,826 | \$519,005 | \$328,231 | \$190,774 |
| Roadway and Structures: | | | | | |
| Additional main track* | \$10,096 | \$26,278 | \$36,374 | \$20,616 | \$15,758 |
| Yards and sidings | 26,046 | 29,832 | 55,878 | 36,666 | 19,212 |
| Heavier rail | 13,774 | 46,441 | 60,215 | 35,720 | 24,495 |
| Additional ballast | 2,337 | 8,146 | 10,483 | 6,997 | 3,486 |
| Shops and engine houses (includ- ing machinery and tools) | 13,853 | 43,530 | 57,383 | 28,131 | 29,252 |
| Station and office buildings and other station facilities | 7,857 | 14,353 | 22,210 | 13,433 | 8,777 |
| Bridges, trestles and culverts | 25,888 | 26,275 | 52,163 | 25,088 | 27,075 |
| Signals and interlockers, tele- phone and telegraph lines, au- tomatic train control, etc. | 20,939 | 28,611 | 49,550 | 22,091 | 27,459 |
| All other improvements | 36,813 | 49,572 | 86,385 | 43,139 | 43,246 |
| Total roadway & structures .. | \$157,603 | \$273,038 | \$430,641 | \$231,881 | \$198,760 |
| Grand Total | \$364,782 | \$584,864 | \$949,646 | \$560,112 | \$389,534 |

† As compiled by Association of American Railroads.

* Additional track includes rail and tie fastenings and other track material.

passenger-train cars was established in 1944 when these expenditures dipped 66 per cent below 1943 figures and amounted to only \$1,921,000, compared with \$5,828,000 in 1943, \$24,075,000 in 1942, \$295,544,000 in 1941, \$18,417,000 in 1940 and \$19,723,000 in 1939.

M. of W. Expenditures Spurt

Purchases of steel rails showed an increase of 26 per cent in 1944 when they amounted to \$75,763,000; track fastenings increased in the same proportion and amounted to \$55,229,000, while expenditures for switches, frogs and crossings amounted to \$26,114,000, an increase of approximately 14 per cent compared with 1943.

For track and roadway tools of all kinds, motor cars and trailers, miscellaneous track material and wire fencing, the railways spent \$11,599,000 in 1944 or 37 per cent more than in the previous year. Expenditures for ballast increased almost 6 per cent and amounted to \$20,582,000.

Treated and untreated cross-ties showed comparatively little change and expenditures amounted to \$85,202,000 compared with \$83,402,000 in the preceding year. Purchases of switch and bridge ties, on the other hand, spurted 39 per cent in 1944, amounted to \$13,174,000 and reflected the effect of a better price incentive.

In 1944 the railways received \$23,147,000 of interlocking and signal material, 27 per cent more than in the previous year and their purchases of telegraph, telephone and radio material amounted to \$4,636,000 or an increase of 63 per cent. In addition the roads received \$27,338,000 of electrical materials or 38 per cent more than in 1943.

Since the foregoing figures do not include any expenditures for machinery, apparatus, materials and supplies that

were purchased for the railways by contractors engaged in making additions and improvements to Class I railway property, the following data, as compiled by the A. A. R., indicates the extent of this work in 1944 and the value of the materials involved. Gross capital expenditures for roadway and structures last year totaled \$231,881,000, an increase of \$33,580,000 or approximately 17 per cent over 1943, 24 per cent more than in 1942, 31 per cent greater than in 1941, 47 per cent more than in 1940

★ ★ ★



Chapel on Wheels Serves Army Railroaders

The 729th Railway Operating Battalion brings Divine Services to its 17 detachments between Cherbourg and Lisieux—The chapel, which accommodates 50 men, is a renovated German steel baggage car, captured at Cherbourg.

and 80 per cent greater than in 1939. Approximately \$100,000,000 was spent for the improvement of tracks and sidings. Capital expenditures for additional main tracks totaled \$20,616,000, 11 per cent more than in 1943, more than three times the amount spent for that purpose in 1942, five times the amount spent in 1941 and six times the amount spent in 1940.

Expenditures for the erection of new and the modernization of existing shops and enginehouses amounted to \$28,131,000, an increase of 80 per cent over 1943, more than double similar expenditures in each of the years 1942 and 1941, 152 per cent greater than expenditures for 1940 and almost three times those of 1939.

Signaling Purchases

The railways also spent \$25,088,000 for new and the improvement of existing bridges, trestles and culverts, an increase of 21 per cent over 1943, 17 per cent more than in 1942, 29 per cent more than in 1941 and 11 per cent more than in 1940.

Capital expenditures for signals, interlockers, telephone and telegraph lines increased 37 per cent in 1944 and totaled \$22,091,000 compared with \$16,041,000 in 1943, \$16,261,000 in 1942, \$13,439,000 in 1941 and \$10,275,000 in 1940.

Improvements to station and office facilities also showed a sharp increase last year and amounted to \$13,433,000 or 30 per cent more than in 1943, 27 per cent more than in 1942, 20 per cent more than in 1941 and 71 per cent more than in 1940.

Adapts Steam Facilities for Diesels

Modified enginehouse on Atlantic Coast Line at Waycross, Ga., incorporates latest design features at small cost, with minimum use of critical materials

AN example of how existing steam locomotive shop and enginehouse facilities can be adapted to the efficient maintenance and repair of modern Diesel locomotives is seen on the Atlantic Coast Line at Waycross, Ga., where this road is now handling the inspection, servicing, running maintenance and repair of twenty-four 2700-hp. Diesel-electric freight locomotives in former steam locomotive facilities, adapted in part to permit these new classes of work under favorable conditions.

At Waycross, an important junction point in south Georgia, the A. C. L. has long maintained a large steam loco-

motive erecting and backshop, along with a large modern enginehouse. When in 1943 it received the first of 24 new Diesel freight locomotives for operation between Richmond and Waycross, consideration had already been given to the provision of suitable facilities for the servicing, maintaining and repairing of this new power, and Waycross had been decided upon as the logical point to carry out this work. With capacity available in both the backshop and enginehouse at this point for work on Diesels, resulting in part from the substitution of Diesels for steam units, it was decided to take advantage of the facilities al-

ready available, altering them as necessary to permit efficient Diesel shop operations, and thus, in the interest of the war effort, avoid to a maximum the use of critical building materials.

Enginehouse Changes

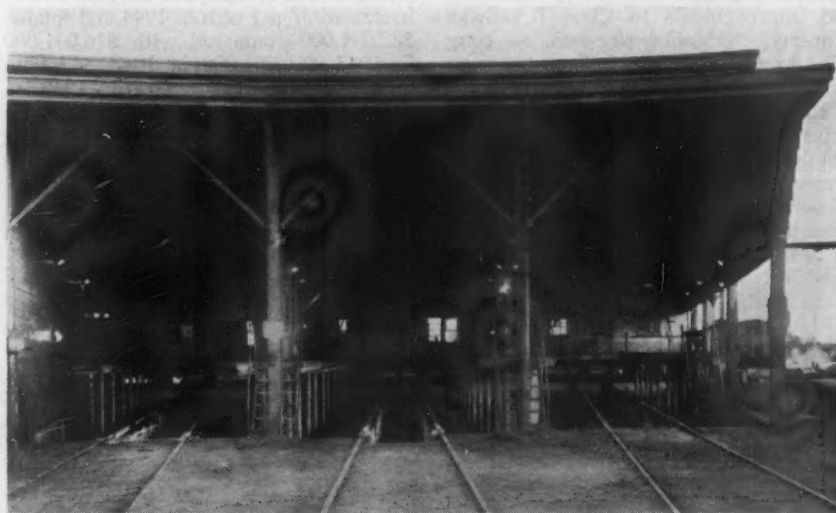
In following out this plan few changes were necessary in the backshop other than to provide space necessary for work on Diesel locomotive trucks, traction motors, wheels and the engine units themselves. An existing drop table in the enginehouse afforded means for removing trucks, wheels and traction motors, and existing 10-ton and 50-ton overhead traveling cranes in the backshop afforded means for the handling of wheels and motors and for removing and replacing complete engines and generators, as required. On the other hand, to permit the effective inspection and running maintenance of the new power, with greatest efficiency on the part of the shop forces, fundamental changes were made in three stalls of the existing enginehouse.

The enginehouse at Waycross is a 15-stall, frame structure of the round-house type, served by a 100-ft., three-point bearing turntable. It is 108 ft. deep, from entrance to outer circle wall, and each stall was equipped with a standard-type inspection pit. In a generally temperate climate, the house has open ends and no entrance doors.

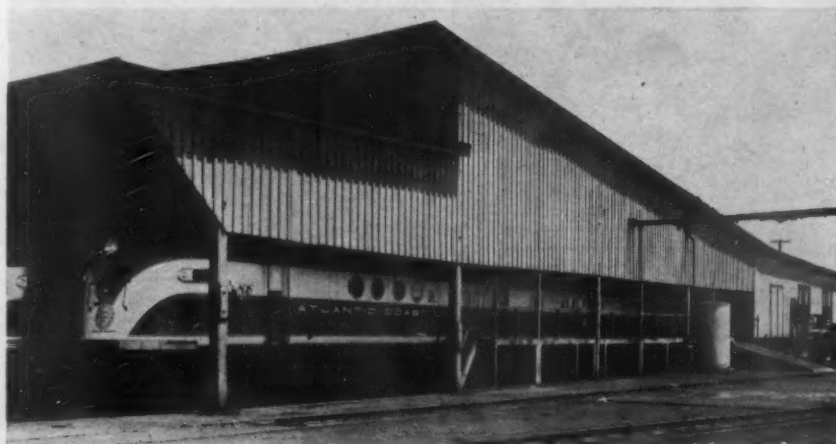
On the basis of the anticipated immediate needs for Diesel servicing and maintenance at Waycross, which was to involve the handling of nine of the new locomotives in each 24-hour period, it was decided to turn over three end stalls of the house for Diesel work and to incorporate in them the latest features of pit, floor and platform construction for that work. Also, fundamental to the plan, the three-pit Diesel section was made independent of the remainder of the house by means of a partition wall, and was provided with an auxiliary shop, office and storeroom area of its own, in a 42 to 50-ft., one-story extension at its outer end.

Two Floor Levels

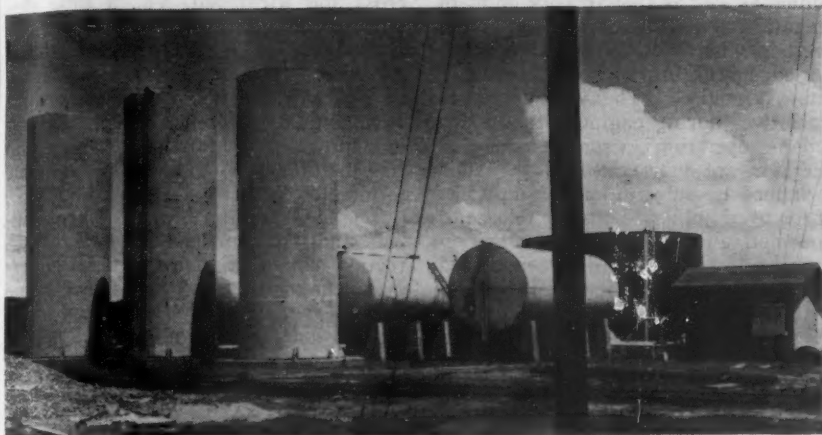
The old floor and pits were removed and completely rebuilt; the pits with a minimum inside depth of $4\frac{1}{2}$ ft. below the top of rail, and the new floor between pits with its top surface 30 in. below the top of pit rails. Both the new pits and the depressed floor areas were



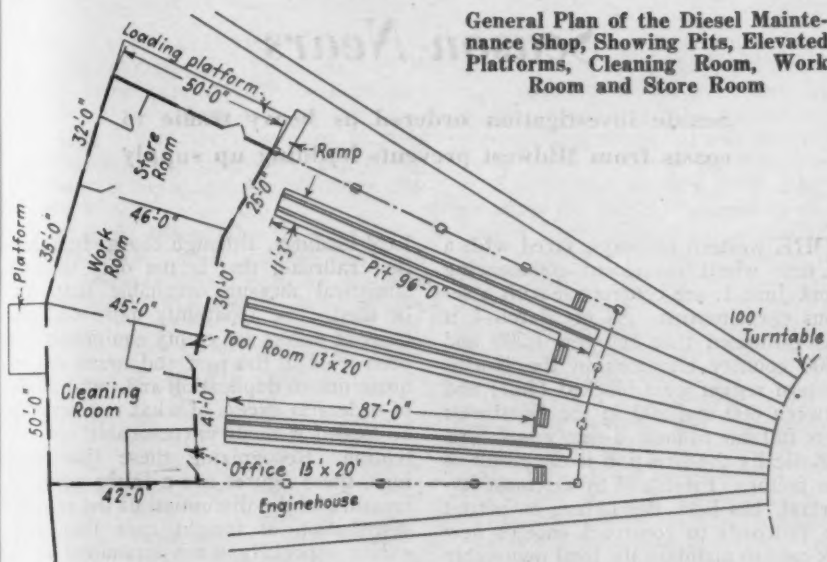
Front View of the Three-Stall Diesel Shop Section of the Enginehouse, Showing Pits, Depressed Floor, and Elevated Platforms Between Locomotive Positions



Side View of the Enginehouse Diesel Shop, Showing General Type of Construction, an Elevated Working Platform and the Storehouse Loading Platform



Storage for Nearly 600,000 Gal. of Fuel Oil and for 16,000 Gal. of Lubricating Oil Is Provided Directly Behind the Diesel Shop



General Plan of the Diesel Maintenance Shop, Showing Pits, Elevated Platforms, Cleaning Room, Work Room and Store Room

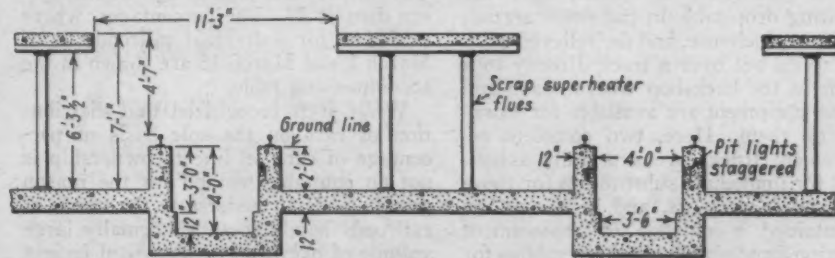
built of concrete, 12 in. thick, and throughout were pitched toward the turntable end for drainage. The new pits, with their outer ends equipped with ramps, and with each fitted with 19 recessed electric lights in its side walls, permit the ready inspection and maintenance of traction motors and underframes under the most favorable conditions. At the same time the depressed floor provides for the ready inspection and maintenance of locomotive running gear and brakes with a minimum amount of stooping on the part of the shop forces engaged in this work.

Still another feature of the Diesel shop area is the provision of elevated platforms continuously along and between the three pit tracks, and along the outer sides of the two outermost of these tracks, the tops of these platforms being directly at locomotive engine-floor height, 4 ft. 7 in. above the top of pit rails. Thus, in reality, the shop has two continuous working floor levels, the upper level precluding all climbing up and down, to and from the cabs of locomotives, and also the laborious handling of parts between two levels, with the attendant danger of damage to parts

and of strain on, if not possibly injury to, workmen.

The elevated platforms, to each of which access is gained from the depressed floor level at the front end by means of stairs, have reinforced concrete decks and afford working underclearance of 6 ft. 3½ in. Each of the platforms is supported on two rows of scrap superheater flues, functioning as columns, which are set well back from the edges so as to occasion minimum interference to the operations of workmen on the lower level.

To continue the advantages of the elevated platforms between tracks, these



Part Cross Section Through the Pit Area of the Diesel Shop, Showing the Relationship Between the Different Working Levels

platforms were extended continuously around the outer end of the Diesel section, and lead directly into the new shop, office and storeroom section built onto this part of the enginehouse. This annex section, which has a depth of 42 ft. at one end and of 50 ft. at the other, is of the one-story, leanto type, fully enclosed with corrugated asbestos siding. Its floor, of wood, is at the same level as the elevated platforms of the shop proper and is divided by partitions into three principal areas, one designated a cleaning room, another a work room, and the third a storeroom. Doorways in the separating partitions provide for movement between these three rooms as required, and other doorways permit ready movement from any of the rooms directly to the elevated platforms between pit tracks.

The cleaning room, which houses an enclosed shop foreman's office, 15 ft. by 20 ft., and an enclosed tool room, 13 ft. by 20 ft., is used primarily for cleaning air filters, packing lubricating oil filters, and for cleaning all parts removed from locomotives for repair or reconditioning. The room is fully equipped with modern facilities for the rapid cleaning of filters, and is served by an auxiliary outside platform, supporting a vat for the cleaning, in the open, of cylinder heads, liners, pistons, gear cases, etc. This platform, with its cleaning vat, is served by a ½-ton overhead monorail hoist, which extends into the cleaning room, and thence laterally into the work room, where the cleaned parts are repaired or otherwise reconditioned.

Beyond the work room is the storeroom, exclusively for Diesel parts and materials. This room includes a small storekeeper's office and is served along its outer side by a floor-level receiving platform. Thus all cleaning and repair operations are on the same level and are lined up in ordered sequence, with new or replacement parts readily available and convenient to all parts of the shop.

Servicing Facilities

Diesel sanding facilities at Waycross are located on one of the leads to the shop, while refueling, lubricating oil changes and the replenishing of cooling water supplies are done within the shop itself while routine inspection and running maintenance operations are under way.

To permit this, each pit track is served by fuel oil, lubricating oil and distilled water lines, with outlets con-

venient to the points of delivery on locomotives.

The fuel supply is stored in a series of six above-ground steel tanks with a combined capacity of approximately 600,000 gal., these tanks being filled from tank cars, three of which can be spotted and unloaded at one time by means of a 300-gal. per min., electrically-driven centrifugal pump. From the storage tanks the oil is pumped through six Michiana Wastex-type oil filters to a series of 2½-in. fuel oil lines, one of which is fixed permanently to one of the sidewalls of each track pit. Each of these service pipes has two outlet valves, with short connections to reach the fuel tanks of the Diesel units.

Lubricating oil for the Diesels is stored in two 8,000-gal. steam-heated, above-ground tanks, directly to the rear of the enginehouse, and is pumped to the Diesel shop by a small centrifugal pump.

Within the shop, the oil is carried along both sides of each pit in 1½-in. pipe lines clamped to the underside of the adjacent elevated platforms, which are brought up through each platform at the proper points to ten-foot delivery standpipes. Each of these standpipes, located opposite the normal position of the cab door as the locomotive stands in servicing position, is equipped with a 10-ft. length of flexible hose for making delivery of the oil directly to the lubricating oil tank on each unit. Worn or used lubricating oil is drawn off from the Diesel units when the allowed mileage has been obtained, and is then shipped to the renovating plant at Jacksonville, Fla., where it is cleaned and restored for further use.

Distilled water for the cooling systems of the Diesel units is obtained from the general shop steam line at Waycross and is stored in a 1250-gal. wood tank located on a 40-ft. tower. This water is piped to the locomotive positions in the shop through a series of 1½-in. pipe lines located on both sides of each track pit.

All of the various pipe lines in the shop are painted in colors corresponding with the color scheme employed by the Diesel builder within the Diesel units, thus avoiding the possibility of confusion and of making errors in servicing operations.

Heavy Repairs

When it becomes necessary to remove wheels, a truck, or a traction motor, the Diesel locomotive is spotted over the Whiting drop table in the steam section of the enginehouse, and the relieved units are rolled out over a track directly to a point in the backshop where space and crane equipment are available for working on them. Here, two complete replacement trucks are kept fully assembled for immediate substitution for those released for repairs, and here also are maintained a number of replacement traction motors and wheel assemblies for immediate use.

Heavy Diesel engine repairs and over-

hauling, as well as similar work on main generators, are also carried out in the backshop, where a 50-ton traveling crane is used for lifting out and replacing units as required. To avoid delays to locomotives during engine or generator shopping operations, a spare engine and generator are maintained in the shop for immediate substitution for units set out for overhauling. Thus the release of a locomotive in the backshop for the resumption of road service is accomplished in a matter of only a few hours rather than days.

Normally the Diesels serviced at Waycross make a round trip between Way-

cross and Richmond, Va., a total distance of 1210 miles, with a full tonnage train, between shop inspections, and sometimes, in addition on such runs, they include a double-back run between Richmond and Florence, S. C., resulting in a total run of 1,900 miles for the full trip, before arriving back at the home terminal.

The facilities at Waycross were planned and built under the general direction of F. S. Robbins, general superintendent motive power of the Atlantic Coast Lines, and under the immediate supervision of J. Grant, superintendent of motive power at Waycross.

Car Shortage Looms as Harvest Season Nears

Senate investigation ordered as heavy traffic to coasts from Midwest prevents building up supply

THE western railways, faced with a new wheat movement commencing about June 1, are confronted with a serious car situation. As of March 1 it was estimated that between 1,200 and 1,300 country elevators in the Northwestern region were blocked (full) and between 800 and 900 in the Southwest were full due to lack of empty box cars.

Basically the situation is the result of two factors. First, and by far most important, has been the failure to permit the railroads to construct enough new box cars to maintain the total ownership at its pre-war level although traffic demands are far ahead of that level. In 1943 only 2,279 new box cars were installed, in 1944 only 17,600. In 1945 railroads were permitted to order 21,700, but recent action of the War Production Board has cut second quarter deliveries nearly in half. The second factor in the car shortage in the west has been the dislocation of box cars caused by the war and severe winter weather conditions in the Northeast. A survey by regions of conditions prevailing on March 1 indicated the following percentages of box cars on line to ownership: Allegheny district 108, Eastern district 96, Northwestern district 58, Central western district 94, Southwestern district 79. The percentages, where available, for individual railroads as of March 1 and March 15 are shown in the accompanying table.

While it is recognized that distribution of cars on the sole basis of percentage of cars on line to ownership is not an equitable method for the reason that it tends to understate the needs of railroads handling an abnormally large volume of overhead or long-haul freight traffic which requires large number of cars that do not become available for

local loadings, although charged against that railroad, this is the only definite statistical measure available that can be used. The apparently more realistic basis of orders for empty equipment has been tried in the past and found inadequate due to duplication and pyramiding of orders in excess of what can actually be loaded without unreasonable car detention. Recognizing these shortcomings, these figures are a fairly accurate measure of the disruption of the normal distribution of freight cars that now exists, especially when examined on a regional, rather than on an individual railroad basis.

Order of February 19

Since the beginning of the present war there has been a tendency for freight cars to accumulate on the coasts and particularly in the Northeastern regions. This tendency, however, did not assume serious proportions until the recent snow and ice storms in January and February caused almost complete cessation of freight movements in a large section of the country, resulting in a tremendous accumulation of freight cars, both loaded and empty, in the Northeast with corresponding loss of car days.

In an effort to secure a more equitable distribution of freight equipment, the Car Service Division of the Association of American Railroads directed the eastern lines to handle in empty movement via the Chicago, Peoria, Springfield, and East St. Louis, Ill., gateways 1,400 box and automobile cars per day. From the effective date of this order on February 19, to April 5, approximately 54,189 such cars had been delivered to the western lines, 80 per cent moving via



Some of the Thousands of Cars That Have Been Diverted from the Grain Movements to Handling of War Traffic

Chicago. A. A. R. representatives at Chicago and East St. Louis are distributing some cars to individual western lines for their own use and are earmarking others for movement to lines not reaching the gateways, such as the Great Northern and the Northern Pacific.

Although the number of cars delivered is large, little headway has been made towards building up an adequate car supply on the western lines because

of the tremendous accumulation of unfilled orders. A large portion of the cars diverted to the west are loaded within a few days after receipt by the western lines with vital war freight carrying them back into the Northeastern section of the country. To date, the demands for cars for shipments of war freight have been so great that it has been impossible to place any large number in grain traffic between country elevators and terminals, although, once such a movement can be inaugurated, a satisfactory pool of cars can be maintained with little difficulty.

In the meantime the western lines are faced with demands for large numbers of cars for movement of corn, kaffir corn, milo maize, and similar grains which are now in open storage and which, because of their high moisture content are in danger of spoiling unless moved to dryers or direct to processing plants. According to the latest available reports there are 1,923 country elevators blocked which must be relieved if the coming wheat crop is to be handled successfully. At present the terminal elevators are in a rather fluid condition and can take, subject only to securing sufficient labor to unload cars, all of the wheat the country elevators can offer, and under normal conditions such a movement would now be under way in order to make room for the new crop. Due to lack of cars there is virtually no such movement now taking place. Should the car supply continue to prohibit such a movement, it will be necessary to store the new wheat crop on the farms and in such makeshift storage space as can be found until the country elevators can be cleared of the 1944 crop.

Record Port Movement

Notwithstanding the importance of opening the country elevators so that they can assist in the movement of the new crop, various governmental agencies have placed orders for the shipment of more than 100,000 cars of wheat from the terminal elevators to the ports for lend-lease, relief, and military purposes.

This movement will, in any event, place a severe strain on the already depleted car supply by reason of the long hauls involved, and if any considerable portion is routed through the Eastern ports will further drain off the cars now in the area. Even with a normal car supply such a movement at this time of the year would present the western railways with a difficult problem, but coming as it does in the midst of a most serious car situation, it does not appear likely that the lines will be able to clear the country elevators before the harvest season.

Men and Power Available

At present the western railroads can offer no assurance that there will be sufficient cars to move either the remainder of the 1944 wheat crop to the terminal markets, or the 1945 crop without delay. Barring unforeseen developments, they anticipate no serious motive power shortages to interfere with orderly handling of the crops.

Meanwhile, the problem of sufficient man-power to operate trains and stations is difficult, but is not expected to be insurmountable. Most lines advise that they can borrow men from other divisions and that, by working crews the full 16 hours allowed, there should be no failures due to lack of men.

Senate to Investigate

Chairman Wheeler of the Senate Committee on interstate commerce announced this week that the committee will conduct an investigation of the grain-car shortage with public hearings starting next Tuesday, April 17. The committee is thus proceeding with a probe of the kind called for in Senate Resolution 115 introduced on April 9 by one of its members—Senator Reed, Republican of Kansas—without having bothered to take any action in the way of reporting that resolution to the Senate for consideration.

The investigation called for in the Reed resolution would have been conducted by the same committee, or a subcommittee thereof. The resolution asserts among its "whereases" that the Interstate Commerce Commission "has failed to give the matter adequate consideration and failed to take any action in the way of relieving the situation"; that the Office of Defense Transportation "went further and scornfully rejected the prayer of the Kansas City grain conference on March 22 for relief"; and that the Association of American Railroads "has not corrected the flagrant dislocation of the grain-car supply to which attention has repeatedly been called over a period of several months."

The resolution also asserts that the present situation, wherein 2,000 country elevators are filled with grain and closed "through inability to get railroad cars," and "millions of bushels" of grain have deteriorated, has obtained "for a longer period than for any previous harvesting

Per Cent of All Box Cars on Line to Ownership

| Railroad | Per Cent on March 1 | Per Cent on March 15 |
|-------------------------------------|---------------------|----------------------|
| Eastern District | | |
| Boston & Maine | 361 | ... |
| Delaware & Hudson | 155 | ... |
| Erie | 142 | ... |
| Grand Trunk Western | 66 | ... |
| New York Central System | 116 | ... |
| New Haven | 363 | ... |
| Pennsylvania | 98 | ... |
| Pere Marquette | 55 | ... |
| Wabash | 73 | ... |
| Allegheny District | | |
| Baltimore & Ohio | 93 | ... |
| Central of New Jersey | 249 | ... |
| Reading | 166 | ... |
| Northwestern District | | |
| Chicago & North Western | 61 | 66 |
| Chicago Great Western | 61 | 74 |
| Elgin, Joliet & Eastern | ... | 120 |
| Great Northern | 39 | ... |
| Green Bay & Western | ... | 71 |
| Milwaukee | 59 | 57 |
| Minneapolis & St. Louis | 43 | 44 |
| Northern Pacific | 58 | 53 |
| Soo | 52 | 48 |
| Central Western District | | |
| Alton | ... | 175 |
| Burlington | 63 | 62 |
| Chicago & Eastern Illinois | ... | 161 |
| Colorado & Southern | ... | 163 |
| Denver & Rio Grande | ... | 78 |
| Western | ... | 62 |
| Ft. Worth & Denver City | ... | 98 |
| Illinois Terminal | ... | 73 |
| Rock Island | 65 | 93 |
| Santa Fe | 94 | ... |
| Southern Pacific | 137 | 140 |
| Union Pacific | 89 | ... |
| Western Pacific | 135 | 123 |
| Southwestern District | | |
| Gulf Coast Lines | ... | 140 |
| International-Great North-ern | ... | 133 |
| Kansas City Southern | 107 | 108 |
| Missouri-Kansas-Texas | 91 | 81 |
| Missouri Pacific | 74 | 86 |
| St. Louis-San Francisco | 52 | 52 |
| St. Louis Southwestern | 112 | 118 |
| Texas & New Orleans | 185 | 154 |
| Texas & Pacific | 160 | 86 |

period with no signs of improvement." Senator Reed's bill of particulars was the nine-page letter he addressed on April 5 to Interstate Commerce Commissioner Carroll Miller, Director J. Monroe Johnson of the Office of Defense Transportation, and President J. J. Pelley of the Association of American Railroads.

Representatives of the grain trade in the eleven middle western states met again in Kansas City on April 10 and listened for hours to doleful reports on conditions and future prospects of transportation for the wheat movement. A delegation of eight members was appointed to go to Washington and demand from the O. D. T., the I. C. C. and the A. A. R. that more box cars be supplied for the impending wheat harvest. This delegation will arrive in Washington on April 17. Meanwhile, the U. S. Department of Agriculture reports that an all-time record harvest of winter wheat is to be expected.

Senator Reed's letter, it said, was written "because of the distressing failure to fully comprehend the transportation situation in the grain belt." This "failure," he added, "is especially pronounced on the part of the Interstate Commerce Commission and the Office of Defense Transportation," and he cited letters written recently by Commissioner Miller and Director Johnson to E. R. Jessen, president of the Board of Trade of Kansas City, Mo., in reply to a communication wherein the latter had passed along recommendations for relief measures which had been framed at Kansas City's March 22 grain conference, mentioned above.

Senator Reed's Appraisal

Senator Reed called the Johnson reply, rejecting the recommendations, "intemperate," while he looked upon Commissioner Miller's treatment of the question as "casual" and "obviously based upon incomplete information and inadequate consideration." And he also criticized the railroads "for this situation," although he had "no criticism of the overall performance of the railroads." As Senator Reed appraised the current situation, the grain-producing areas as of March 24 were "short 163,000 carloadings."

In calling attention to the "dislocation of box cars," he presented figures, as of November 1, 1944, and 1945, on the percentage of box cars to ownership on certain roads. His figures showed excesses of cars on line over ownership on a group of eastern roads, while the western roads he listed had on their lines fewer cars than they owned. "When railroads like the Boston & Maine and the New York, New Haven & Hartford," he went on, "must utilize practically their entire box car ownership for the handling of l.c.l. freight, it necessarily follows that they are using some other lines' box cars for their carload loading even though the complete movement is on their own rails. This situation has been repeatedly brought to the

attention of the Association of American Railroads. It is time that something was done about it. We have not come to a time when l.c.l. freight on eastern railroads may use western railroad cars while western grain rots on the ground."

The Senator conceded that, under orders of the A. A. R., empty box cars are now moving westward; but he insisted that "they are not yet moving in the volume necessary to relieve the present situation and prevent a great waste of food material." With the introduction of his resolution, Senator Reed got his letter printed in the April 9 issue of the Congressional Record.

Other Senators Give Views

On the same day other senators injected considerable discussion of the car shortage into what was nominally a debate on the question of extending lend-lease. Senator Aiken, Republican of Vermont, said that the grain producers would not be experiencing their present transportation difficulties if the proposed St. Lawrence seaway had been built. Senator Langer, Republican of North Dakota, inserted into the record various telegrams he had received from elevator operators who reported very small numbers of cars placed recently for loading. Mr. Langer said that he had voted against extension of lend-lease last year, and "I shall vote against it again unless farm implements, box cars and locomotives are excluded."

There was other talk about railroad equipment going abroad, including the comment of Senator Wherry, Republican of Nebraska, who thought it but reasonable to suggest that "a larger percentage of the output of the car manufacturers in America should be turned over to our own railroads until they can catch up and have sufficient rolling stock to take care of the business in this country." Senator Butler, Republican, also of Nebraska, found in recent data on unloadings at the ports the basis for a statement to the effect that some relief would be afforded if cars consigned to the ports were unloaded more expeditiously.

Barkley Supports Railroads

Without "undertaking to condone the shortage of cars," Majority Leader Barkley of Kentucky expressed his view that it is not 'quite fair' to criticize the railroads, the I. C. C. and the O. D. T. for the absence of box cars in certain localities of the country. "We all know there is a shortage of railroad transportation," he said. "The shortage is due to war conditions. In view of that fact I think the railroads are entitled to have it said that on the whole they have done one of the most magnificent jobs in the history of the United States in serving the people of this country in the midst of war."

"Twenty-five years ago it was necessary for the government to take charge of the railroads and operate them, because, in a sense, they had broken down.

Canada, Too, Is Worried About Wheat Cars

A meeting of the Grain Transportation Committee in Montreal dealt with a shortage of box cars which western advices say is giving rise to a "crucial situation" in the movement of grain.

In Montreal Transport Controller Lockwood said the "debit balance" of Canadian box cars in the United States now stands at about 12,500 cars and that the American Association has ordered eastern and southern lines to return Canadian cars to Canada empty.

Fear has been expressed in the West that any hold-up in deliveries likely would cause a serious pileup when traffic facilities later become fully taxed to meet the requirements of the intensified war in the Pacific.

The Dominion Bureau of Statistics reported in its March review of the wheat situation that the eastward flow of wheat by rail from the Lakehead during February was reduced to "less than" 765,000 bushels, the smallest movement recorded in February for a number of years and a reflection of the shortage of box cars on Canadian railways.

So far during the present war the government has not been required to take over the railroads. The railroads have increased their rolling stock as much as they could under the circumstances. The fact that an unusually large percentage of their rolling stock has been used in the transportation of war materials is something that could not be avoided. The condition to which the senator [Mr. Langer] has referred as existing in his own state might be multiplied more or less by many similar situations in various parts of the country. They are due to war conditions."

* * *



"Sparky" Photo Roseville

The Southern Pacific Shops at Roseville Turned Out This Conveyance for Call-Boy C. W. Walton—It Is Said the Puddle Jumper Will Make 65 Miles to a Gallon of Gasoline

Selection and Training of Supervisors

In building for the future the supervisor is most important, for upon his selection and training will depend the difference between economic and costly operation

By F. K. MITCHELL

Assistant General Superintendent
Motive Power and Rolling Stock
New York Central

IN building for a future which will be insured of good, capable and efficient supervision, no more important problem than the selection of the supervisor will present itself.

The care with which this task is done will be the measure of future success; the difference between good and unsatisfactory production; between a smoothly functioning organization and unwilling compliance with orders; between harmony and continual labor troubles; between good workmanship and poor workmanship; and finally, between economic and costly operation.

Shopping for a Supervisor

In "shopping" for the boiler supervisor, as in the case of any shopping for any article you might need, the proper fundamentals behind the task are: First, to know what you want, and second, to start early enough so that when the supervisor is needed you will already have located him. This means that you should not follow either the ordinary shopping practice of woman or man. Most women start shopping without knowing exactly what they want. They start early enough ordinarily and, being endowed with more patience than the average man, usually keep looking until they find something that suits them. On the contrary, when a man shops he usually knows exactly what he wants, but because of lack of patience finally accepts a "just as good" substitute rather than to keep on looking, or has to take a substitute because the seat of his pants is already out. Neither of these procedures will do when you are shopping for a supervisor.

This task requires you to know what kind of man you want; how many supervisors you are likely to need and when you are likely to need them; where you are most likely to find them; how to train them for their jobs; and how to interest them in accepting the job. Taking these requirements in their order let us see how the job should be done.

What Kind of a Man Do You Want? The supervisor should have a good personality, that is to say, he should have that unexplainable something which makes men like and respect him and makes him like and respect the rights of other men. Next, he should have natural mechanical ability so that he may readily progress with his job. Then he should have a reasonably good educa-

tion so that he understands instructions, clearly conveys his instructions to his men, and keeps properly all necessary records. Finally, he should have a background of good varied mechanical experience, including design, layout, construction and repairs of locomotive boilers and other equipment which is the boiler department's responsibility.

How Many Supervisors Are You Likely to Need?—This is another phase of the shopping problem that is often overlooked. Some men asked to buy bananas for the family table would come back with more than could possibly be consumed before they spoiled. Other men would return with sufficient only for themselves. Too many candidates for supervisory jobs may result in some of them becoming spoiled and too few, on the contrary, are just as bad for the organization. The first and most necessary requisite here is to know your organization. Not only does this mean to know the supervisors, but, as far as is humanly possible, every man in the organization from the latest employed laborer to the top ranking supervisor. Only by so doing can you know how many supervisors you should have and how many vacancies for supervisors you are likely to have to fill in any given period. You must know what supervision is necessary to get the best results from your organization, and you must know the capabilities, shortcomings, physical condition, age, attitude and even the home life of your existing supervisors. You must know the mortality rate, retirement dates, the possible loss to other departments and other industries from your supervisory ranks. Such intimate knowledge will serve to answer both the question of how many supervisors you are going to need and about when you will need them.

Where Are You Likely to Find Supervisors?—You are not going to find them, at least not full-fledged supervisors. What you must look for and find are the candidates for those positions, who possess certain fundamental qualifications, some of which are inherent and others are susceptible to development. A few such candidates will be found among your existing employees. The balance will have to be induced into the ranks of your employees through the apprentice systems.

The best candidate is one who has been trained so that his background of experience will eventually fit him for any supervisor's position in the boiler department. Mechanically that means he must be a boilermaker in the true sense of the word. The scope rule in the majority of labor agreements spells out the things which he must be qualified to do and do well. Part of this you must see that he learns during his apprenticeship. The balance, which is even greater, you must give him after he becomes a journeyman. Whenever possible this experience should include not only shop but also engine terminal work. If he knows what it is going to take to maintain the boiler he builds or repairs he will build a better boiler. If he knows how a boiler is built or given general repairs he will know better how to take care of it when it goes into service. While he is receiving this mechanical training you must follow him closely, study him intently in order to be sure that he has those other essential supervisory qualities which you suspected he had when he started his apprenticeship. If you find that you were wrong, that he does not possess them in the necessary degree, the fairest thing to him and to your company is to cross him from your potential supervisors' list at once and make the best mechanic out of him that you can. If your close observance of him verifies the fact that he possesses those qualifications to a satisfactory degree, start at once to develop him into a supervisor.

Grooming Him to the Job

Diamonds are not mined without sweat, and after being mined are not in shape for the market without painstaking care, cutting and polishing. No more can you expect to produce a good supervisor without similar care, shaping and polishing. Infinite care in polishing and improving his better qualities, and in eliminating or minimizing his objectionable ones will, in the end, pay infinite dividends in the satisfaction of producing a supervisor who will fulfill completely the assignments he will later undertake. To that end, no amount of counsel, admonition, advice and example in laying out and assignment of work, planning of work to fit production schedules, diplomatic handling of men, learning and administration of labor agreements and methods of insuring confidence in others, can be amiss. The deeper you can cause those lessons to sink the more surely the time will come when you can trust him with the responsibilities of a supervisor.

This article is one of the contributions to a symposium on the training of supervisors prepared for the yearbook of the Master Boiler Makers' Association. This paper deals specifically with the boiler supervisor, but the principles which it contains are generally applicable.

How Can You Get Him to be a Supervisor?—In recent years you probably have noted a growing tendency on the part of men to reject positions as supervisors when they are offered. Have you given any study to the reason for this? Here are a few which may throw some light on the answer to the problem we are considering:

1. Are we offering these positions to men who have not been trained for them and who realize that fact?

2. Are we exhibiting a tendency to place qualified men on supervisory jobs and then not giving them our advice and counsel on how to handle it?

3. Have they noticed that others thus placed have not been given "a break" and if they have appeared to be faltering merely demoted or discharged without due consideration?

4. Have we shown by past example that our supervisors have been subjected to abuse when things are not going right?

5. Have we failed actually to make them a part of management and as such not taken them into our confidence?

6. Have we failed to maintain a proper spread between their wages and the earnings of the men they are required to supervise?

7. Have we failed to accord them the rights and privileges which their positions should merit?

8. Have we, by our actions, given them the feeling that in leaving the protection of a labor agreement and joining the ranks of the supervisor where no such protection exists they are jeopardizing themselves?

9. Have we in the past led too many to believe they were being considered for supervisory positions and then without any attempt to explain the situation to them advanced others around them, thus souring many on the supervisors jobs?

10. Is our system of advancement wrong in that we have too often shown that we allow personalities and friendship to influence the selection of men for such advancement?

If we have been guilty of one or all of these ten crimes, then it is no wonder that we are finding that the supervisor's position is no longer attractive. Let me suggest that you members of the Master Boiler Makers' Associations start at once to analyze this situation on your own railroads and do your part to stop any such practices which you find to exist.

Set Up a Training Program

In summation, it appears that these steps need to be taken if the selection and training of boiler department supervisors is to be successfully handled: First, clean house of any existing practices or conditions which tend to make the supervisor's job unattractive. You cannot train a man for nor get him to desire a position which is not attractive to him. Second, learn intimately your present supervision and solicit their assistance in selecting and training men

to succeed them. Third, study your problem until you know as near as is possible what your supervisory needs are. Fourth, begin now, with the assistance of your present supervisors, to look for supervisory material within your own ranks. Fifth, as soon as possible, begin inducting likely supervisory material into your apprenticeship ranks. Finally, set up a training program which will progressively prepare candidates for supervisory positions to assume those duties when needed.

COMMUNICATIONS . . .

Long Shipments by Rail

THYSVILLE, BELGIAN CONGO

TO THE EDITOR:

In *Railway Age* of August 19, 1944, page 318, you ask if the 163-ft. 7½-in. cylinder was the longest shipment ever made by rail.

The "Railway Gazette" (London), of March 6, 1936, page 448, shows a shipment of two 1,400-ft. rails, which I suppose to be the longest one. This was possible owing to the flexibility of one single pair of rails.

On November 6, 1932, a train of 46 rails, 60 meters (197 ft.) long, was shipped on the Matadi-Léopoldville Railway (Belgian Congo) from Cattier to Léopoldville, the distance being 178 kilometers (110 miles). The rail weighed 33.4 kilograms per meter (67-lb. rail). Numerous curves from 150-meter radius (11-deg. 40 min. curves), and turnouts with 100-meter radius (17½-deg. curves) were traversed without accident. The maximum displacement of the rails was about one foot. The speed did not exceed 25 kilometers (16 miles) per hour.

F. RANDOUR

Chief of Technical Service,
Colonial Transport Operating Office

EDITOR'S NOTE.—The August 19 *Railway Age* reference alluded to above was a commercial shipment, as distinguished from a company shipment. But, in 1939, the Delaware & Hudson hauled 31 1,400-ft. rails on two trains of flat cars. A detailed description of their method of performing the job appeared in *Railway Engineering & Maintenance*, in February, 1940.

Diesel Fuel

NEW YORK, N. Y.

TO THE EDITOR:

The article by F. C. Davern in your issue of March 3 re Diesel fuel is interesting and timely. It is somewhat doubtful if the supply of crude petroleum in the United States and Canada can meet the future demands of those countries and abroad. With the expected development in Arabia, however, a considerable part of the needs of Europe can be met, thus decreasing the demands for petroleum and its derivatives from the United States and South America.

The potentialities of the southern continent of the western hemisphere are probably only partly realized but are likely to be great. They will need American capital, enterprise, machinery and transportation for their adequate development. If these latter are to be available, however, we should have a well informed, statesmanlike approach to, and practice of, our tariff and

foreign policy and not revert to or believe that the proper protection of American interests abroad is "Dollar Diplomacy." We do not need warships and Marines but we do need realism, enlightened knowledge and firmness of purpose.

FRED LAVIS

NEW BOOKS . . .

Plastics Catalog—1945. Published by *Plastics Catalogue Corporation*, 122 East 42nd St., New York 17. 1178 pages, 8 in. x 11¼ in., illustrated. Price \$6.00.

This is the annual edition of a catalog of an industry which is growing so rapidly that annual revisions of material concerning it are required. It contains basic information concerning plastic materials and products and their manufacture and fabrication. Extensive charts and tabular information provide quick-reference data about individual characteristics and comparative qualities.

New material in this edition includes information on recently-developed plastics including silicones. There are also new articles on engineering designs employing plastics and on the making of plastic models. The section on laminates, plywood and vulcanized fibre has been thoroughly revised as has been the chapter on synthetic rubbers and rubber-like plastics. Synthetic fibres and coatings are dealt with at length and there is a new article on organic coatings for metals.

A directory section includes ten complete directories to all branches of the plastics industry including educational institutions, molders, material manufacturers, trade names, etc. A glossary of terminology serves to acquaint the reader with terms and definitions which are peculiar to the industry.

American Malleable Iron. A Handbook. Published by the *Malleable Founders' Society*, 1800 Union Commerce Building, Cleveland 14, Ohio. 368 pages, 5 in. by 9 in. Price, \$4.00.

This handbook contains, in 26 illustrated chapters, a full discussion of the chemistry, manufacture, and use of malleable iron, based on current practice and requirements. Chapters on casting design, pattern design, and machining practice offer a practical data of direct usefulness to designing engineers and production men. Physical, mechanical and engineering properties of standard, pearlitic, and alloyed malleables are set forth in other portions of the book and correlated with requirements for the product as established by the American Society for Testing Materials, the Army and Navy, and other agencies responsible for current specifications. The metallurgical process is simply explained in another chapter, and a section of the book is devoted to engineering tables and data, including a tabular summary of A. I. S. I., S. A. E. and N. E. steels and irons of comparable characteristics. In the chapter on machining practice are tables of feeds and speeds for drilling, milling, and turning. "Design kinks" in the chapter on casting design illustrate and explain a number of short-cuts in design made possible by malleable iron.

Railroads-in-War News

Engineers Bridge Rhine in Ten Days

Called "by far the most difficult single railroad job yet encountered"

According to a cable to the "New York Times," the first Allied railroad bridge to span the Rhine was completed at Wesel, Germany, April 8, following months of preparation by the Corps of Engineers. Though work on the bridge proper (at present known as "R-259") was not begun until 6 p.m., March 29, plans had been initiated long before, with timbers and piling being removed from the Huertgen Forest, once a bloody battleground, and with girders being fabricated and track sections assembled at Differdange, in Luxembourg. Ballast for surfacing came from debris and rubble in Wesel.

Under Col. James B. Press, commanding officer of the 1056th Port Construction and Repair Group, 3,000 engineers and 500 civilians are reported to have worked even at night, aided by floodlights, and the last girder was fitted into place just two hours short of 10 days after the first piles were driven.

The new span, which is 2,588 ft. long, including approaches, and weighs 2,140 tons, is supported by 622 piles and can handle the heaviest of locomotives in that area. Though single-track, the railway on either side of the structure is double-track. Construction of the span involved some risk, as the current at that point was 8 m.p.h. Only three nights before completion of the job, three members of the 335th Engineers were drowned when the "duck" in which they were making an inspection overturned.

The spanning of the Rhine is described by Lt. Col. Robert A. Radford, chief, railroad section, Construction division, Office of Chief Engineer, E. T. O., as "by far the most difficult single railroad job yet encountered." In making this statement, observes a War Department release, the colonel has taken into account the more than 240 railroad bridges which the Engineers have repaired in France, Belgium and Luxembourg, in addition to about 6,950 miles of line. Frequently under fire, one platoon of the 347th Engineer General Service Regiment, protected by small arms only, recently shot down a German Me-109 plane which crashed about one-half mile away, "all of which tends to add interest to the work," the colonel commented.

He then described the work of the Engineers in some detail, explaining that they come into the picture once the Army has determined the direction of its operation, rate of advance, the troops involved, and

has set the supply tonnage that will be required of the railroads.

"Having selected the railroads which, if in operating condition, will supply the required tonnage to the proper location," the colonel went on, "an estimate is made of probable percentage of damage to track and structures that will be occasioned, first by our own bombs and secondly by enemy demolition.

"The total percentage of necessary repair will determine both the material requirements and the construction troops that will be required. For an action like the landing in France, this must all be done months beforehand," he said.

The number of individual items required to build or rehabilitate a railroad run into the hundreds, some requiring months to fabricate. Items such as standard bridging of various types may first have to be designed, standards being set for rails, water tanks, ties, frogs and all the innumerable items of both facilities and material which will enter into rehabilitation work. Then follows procurement, transportation and stocking at a point where such material will be most readily available.

Colonel Radford observed that demolition by the enemy is quite a variable factor. "Where an advance is very rapid as in France," he said, "the percentage of demolition decreases, but the amount of track required to rehabilitate in the same time increases. In a slow advance just the opposite is found. Material requirements tend, therefore, somewhat to equalize, which is fortunate.

"On track work," he added, "the major destruction will be of frogs and switches, unless a 'rooter' is employed. This instrument will damage every rail and break every tie over a considerable length of track if given time. Our own destruction by bombs is confined largely to railroad yards and major bridges."

Only tracks needed for military supply have been repaired by the Army Engineers, the colonel stated, with lines least damaged being selected for supply routes. He recalled that on one occasion near Metz a group of Engineers needing materials not available at the moment "stepped over into enemy territory for certain girders which they picked up with a mobile crane and returned safely to their own lines."

Warren Named Acting Director of O. D. T. Information Branch

Charles V. Warren has been appointed acting director of the Division of Information, Office of Defense Transportation, succeeding former Director Charles E. V. Prins, who has resigned. Mr. Warren has been assistant director of the division for the past year, and prior to that time he was associated with the Public Roads Administration.

Kendall Issues April Report on Car Supply

Foresees continuance of the tight box-car situation until end of year

While there has been "a slight easing" in the general box car supply situation "due to improved conditions in the prolonged storm stricken eastern area," the supply of this type of equipment in all sections except New England "falls short of matching daily requirements," and the tightness "will undoubtedly continue through the balance of this year," according to an April 10 report on the "National Transportation Situation," which Chairman W. C. Kendall of the Car Service Division has sent to general chairmen and National Association officers of the Shippers' Advisory Boards. The report is set up like the previous one issued last month and noted in the *Railway Age* of March 24, page 554.

Military Demand Heavy—It recognizes that the box-car situation is "particularly critical in western territory on grain loading lines," but notes also that there has been "no easing in the heavy demand for high-grade box cars for loading munitions, explosives and other war materials." Meanwhile the program set up by the Car Service Division with eastern and southern roads for delivery of empty box cars to their western connections on daily quota orders "is progressing satisfactorily" and deliveries of box cars through principal western gateways during the period from February 19 to April 5 have aggregated 54,189 empties.

On the basis of total box car receipts, both eastbound and westbound, through principal western gateways, western roads received an excess of approximately 25,000 cars over their deliveries to eastern and southern roads. But notwithstanding this westward flow of box cars, there were 1,923 country elevators closed as of April 7, Mr. Kendall said. This compares with 2,089 blocked elevators as of March 19.

The C. S. D. chairman expects "further improvement" in the box car situation, but a look at the job in sight nevertheless prompted him to make his prediction that tight conditions will prevail for the remainder of the year. In this connection he mentioned "the remaining backlog of traffic to be loaded and the heavy program of the armed forces for the loading of grain and other food stuffs to be shipped to liberated countries in Europe, together with prospective bumper crops of agricultural products and domestic military requirements." All of which means that "utmost efficiency will have to be observed in the handling of every



U. S. Army Signal Corps Photo

The First of 17 Locomotives Is Dedicated to Fallen Railroaders

Members of the 740th and 741st railway operating battalions fire a salute during special ceremonies in a railway yard in Liege, Belgium, for the naming of the locomotive, "Pvt. H. J. O'Brien," the first of 17 such locomotives to be dedicated to military railwaymen killed in action. On the platform in the above photograph can be seen, Maj. Gen. Frank S. Ross (left), of El Paso, Tex., and chief of transportation, European Theater of Operations, and Brig. Gen. Carl R. Gray, Jr. (second from left), director, 1st and 2nd Military Railway Service. Locomotive fireman T/4 Eldon H. Welborn, of Evansville, Ind., stands in the cab. T/Sgt. Arthur R. MacDonald (not shown) is engineer of the "O'Brien."

In the photograph at the right, General Gray talks with three members of the 741st battalion, who, like Pvt. O'Brien, are all from the general's home town, St. Paul, Minn. The enlisted men in this group are Sgts. Arthur W. Torgenson, L. H. Shogren and Bernie A. Almquist.



available unit of box car equipment through the months to come."

More Livestock Loaded—Since the previous report the spring livestock movement had got "well under way," with shipments from the Southwest "particularly heavy" at the present time. Thus C. S. D. has found it necessary to provide relief to the livestock loading lines through delivery of surplus stock cars by eastern and southeastern roads. Also, as anticipated last month, it has been necessary to withdraw stock cars from loading where they have been substituted for box cars.

With respect to the coal car situation, Mr. Kendall noted that the opening of navigation on the Great Lakes April 2 and the resumption of normal coal production will bring heavy demands for this type of

equipment. "There will be no surplus," he added; and "it will require expeditious handling by the shipping public and the carriers to avoid spotty deficiencies at the mines."

The demands for gondolas "continue heavy, and while the requirements as a total are being reasonably well met, the supply is uncomfortably thin with some spotty deficiencies on individual roads in the Eastern, Allegheny, and Southern districts." Neither has there been any diminution in the requirements for plain flat cars, the supply being "tight in all operating districts with some deficiencies in the tri-state area of Illinois-Iowa-Wisconsin, and

the Southern district." Requirements for heavy-capacity flats "continue to be met in a commendable manner," because of the control plan operated by C. S. D. With respect to covered hoppers, the increased demands "are placing a strain on the supply," and the requirements to move bulk cement are expected to increase with the advent of spring and the opening of repair construction programs.

Tank-car deliveries of petroleum products have recently showed a decided upturn, the symbol oil trains being turned around with greater dispatch to bring continuing improvement in the utilization of cars. Because the need for tank cars for commodi-

ties other than petroleum continues heavy, Mr. Kendall said that "special attention" has been given to the situation. Here he mentioned the recent Office of Defense Transportation order establishing a permit system for tank-car transportation for distances of 500 miles or more of tar and asphalt used for road surfacing.

Delays at Freight Houses—No general embargoes on carload or l.c.l. freight had been issued from the time of Mr. Kendall's previous report, but he mentioned again congested l.c.l. conditions remaining despite the recent embargo against that class of traffic and forwarder freight. The situation, he said, "continues to indicate a need for some additional action which will enable the railroads to release cars which are now being held and delayed awaiting unloading of l.c.l. freight at railroad freight houses and transfers. A conference will be held this week with the transportation officers of the roads most affected for the purpose of canvassing the entire situation and determining upon a satisfactory course of action."

The situation at the ports "is good," Mr. Kendall said, noting that March unloadings of export and coastal freight were at an all-time peak—208,112 cars, an average of 6,713 cars per day. On March 30, there was a total of 29,226 cars of export and coastal freight at all ports as compared to average daily unloading during the week ended March 30 of 7,224 cars, "indicating roughly that the 'bank' of export freight at all ports averages four days, or almost 50 per cent less than the free time on export freight which at most ports is seven days."

With further reference to the port situation, the report also reveals that arrangements have been worked out with the Army under which materials of war en route to the ports when V-E Day is proclaimed will be stopped and held by the railroads and reported to the Army for disposition. "This will prevent clogging the ports with a tremendous volume of shipments which may not be needed in Europe after the collapse of Germany," Mr. Kendall explained.

With respect to the passenger-car situation, the C. S. D. chairman had no reliable estimates as to what may be expected as a result of the changing conditions in the battle areas. At the same time he found indications pointing "toward a continued heavy demand for passenger-carrying cars, as well as for headend equipment such as baggage, express, etc."

Weekly freight car detention reports showed that, when checks were made during March, 73,655 cars or 16.13 per cent of the total on hand were being detained over the free time of 48 hours. This is an increase over the 16.02 per cent detention indicated by the February check, but an improvement over March, 1944's 18.02 per cent.

Oil Movement at 1945 High

Tank car movements of crude oil and petroleum products to the East coast set a new high for the year in the week ending March 31, with shipments averaging 547,030 barrels a day, the highest in more than six months, Deputy Petroleum Administrator Ralph K. Davis announced April 6.

But flood waters of the lower Mississippi, at the highest stage in 18 years, carried a

potential threat to overland transportation facilities which, if disrupted, would reduce the margin of safety between petroleum supply and rationed demand along the Atlantic seaboard, he pointed out.

The situation is being watched closely because any setback in East coast deliveries, already hard hit by transfer of tankers from civilian to military service, will be difficult to make up at a later date, since rail, pipe line, and barge shipments are programmed at capacity schedules, Mr. Davies explained.

Heavy rains over Mississippi basin areas had then carried the flood stage at Baton Rouge, La., well above the 43-ft. mark, and a crest of about 45.1 ft., was expected, he said. As a result, barge movements up the Mississippi and Ohio rivers were at a virtual standstill, shutting off more than 75 per cent of the normal river traffic.

Pipe line pumpings had suffered very minor interference, but continuation of local floods in the East Texas petroleum area, Mr. Davies declared, might reduce deliveries of crude oil to the "Big Inch" pipe line terminal at Longview, Tex., below its carrying capacity for New York-Philadelphia terminals. Any protracted curtailment of this source of supply will present a "grave situation." Hope was expressed that the floods will not halt the upward trend in rail movements. Some shipments are being detoured around flooded areas and every

effort will be exerted to divert others if the necessity arises. There is, however, a possibility of temporary curtailment that would cut down the daily average for a brief period, according to Mr. Davies.

L. C. C. Service Orders

The expiration date of Interstate Commerce Commission Revised Service Order No. 299 has been changed to April 20 by Amendment No. 1 to that order. It authorizes railroads in Arkansas, Texas and Louisiana to reroute traffic as required by flood conditions prevailing in those states.

The expiration date of General Permits Nos. 1 and 2 under Service Order No. 202 has been changed from April 1 to May 31 by amended versions of those permits. They allow standard refrigeration of mixed carloads of Florida citrus fruit where specified kinds of fruit shipped make up 50 per cent or more of the applicable tariff minimum weight, or of straight carloads of such specified fruit. General Permit No. 4 under the same order, effective April 2 through May 31, unless otherwise ordered, permits standard refrigeration of cars loaded with grapefruit, or with mixed fruits of which 50 per cent is grapefruit, originating in Florida and moving direct without stop-off to Canada or to points west of the western boundaries of Missouri, Iowa and Minnesota and north of the northern boundaries of Oklahoma, New Mexico and Arizona.

Materials and Prices

The following is a digest of orders and notices that have been issued by the War Production Board and the Office of Price Administration since March 31, and which are of interest to railroads:

Air Circulators—New industrial air circulators have been defined by Interpretation 14 to PR-3, to clear up some confusion as to the meaning of the term; they include any new propeller-type fan for circulating air within a room or space, without the use of ducts, and powered by an electric motor drawing more than 200 watts. These fans are designed for desk, pedestal, wall bracket, ceiling or floor mounting. The term does not include propeller-type fans designed for exhausting air from inside a building or room to the outside or for supplying air from the outside to the space within and normally mounted in a window or over a door or in a wall.

Carbon Steel—A direct transfer of carbon steel from the Army to the O. D. T. will enable the O. D. T. to secure the production of additional new boxcars in the first nine months of 1945. The Army has turned over 34,000 tons of carbon steel for the second quarter of 1945, which will be used for an additional 2,000 boxcars, bringing the total boxcar production for the first nine months of 1945 to the desired goal of 20,000. Col. J. Monroe Johnson, O. D. T. director, said that the railroads have placed orders for all these new boxcars. The cars will be in service by October, in time for the heavy grain movement due at that time, and will also place the railroads in a better position to handle the increased freight traffic to the west coast called for by the huge shipments of war materials to the Pacific theatre.

Tires—Truck-bus tires, tractor-implement tires and industrial tires have been placed under allocation by Rubber Order R-1, Appendix 4 as amended and issued on April 3. The amendment also prescribes a procedure for the distribution of the tires among claimant agencies on a quarterly basis, and designates the Government agencies admitted as claimant agencies for truck-bus, tractor-implement and industrial tires. The present revision places the requirements of the Foreign Economic Administration completely in the classification of direct military claimants. Formerly only the requirements for lend-lease submitted through F. E. A. were in that category.

Yellow Pine—Wholesale lumber dealers and commission men are required by Direction 17 to Order L-335, issued today, to report to the W. P. B. their monthly volume of sales of southern yellow pine. Approximately 80 per cent of southern yellow pine is handled by wholesalers and commission-men. Some contractors working on direct military orders are having difficulty in obtaining procurements and the reports required by Direction 17 will provide information as to the movement of southern yellow pine, showing how much is going to highly essential uses and how much to less essential uses. If necessary, W. P. B. will be able, on the basis of the information obtained, to make diversions to essential war uses that are in danger of falling behind schedule, division officials pointed out.

Prices

Used Lumber—Individual authorization may be granted to sell used lumber that has been acquired this year at current ceiling prices subject to adjustment to increases that may be granted later in the area of the sale or delivery. O. P. A. is preparing to establish dollar-and-cent ceilings for used lumber in certain areas. Although the general effect of these ceilings will be to re-establish prices at average March, 1942, levels in each area, dealers whose ceilings are frozen considerably below area levels may expect price increases on some items.

Effective April 7, the order is designed to remove any incentive for these dealers to withhold used lumber from the market until the new ceilings are established. It authorizes dealers to sell at their present ceilings and, under certain conditions, bill their customers for any difference between their present ceilings and the dollar-and-cent maximum prices when they become effective. However, the buyer and seller are required to agree, at the time of the sale, to later adjustment of prices to new ceilings. The seller also is required to obtain permission from O. P. A. before entering into agreements with buyers.

O. P. A. said that buyers and sellers may also agree that, if new ceilings are not established in the area by a certain date, the price charged at the time of the sale will be the final price.

GENERAL NEWS

B. of R. T. Now Speaks for N. Y. C. Brakemen

Extends its coverage to B. & A.
group, while O. of R. C.
retains conductors

Count of ballots, which had been impounded until the National Mediation Board determined that the tally should be on a system-wide basis rather than by constituent lines, reveals that the Brotherhood of Railroad Trainmen has been chosen as the Railway Labor Act representative of all road brakemen employed by the New York Central and its leased and operated subsidiaries. The net gain for the B. of R. T. is an extension of its coverage to the Boston & Albany, for it already represents all other road brakemen involved.

Meanwhile, the Order of Railway Conductors, which thus lost its right to represent the B. & A. road brakemen, has won the conductors' election and retained the right to represent all road conductors involved. The vote in the brakemen's case (R-1151) was 4,023 for the B. of R. T. and 618 for the O. of R. C.; in the conductors' case (R-1150) it was 1,277 for the O. R. C. and 1,030 for the B. of R. T. In determining that the balloting should be on a system-wide basis, the board adhered to its precedents in that connection, most specifically to its ruling in a previous N. Y. C. case (R-690) involving a yardmen's representation dispute between the Switchmen's Union of North America and the B. of R. T.

Supreme Court Ruling—That case was carried to the United States Supreme Court after the board's determination of the issue had been sustained by lower courts. As noted in the *Railway Age* of November 27, 1943, page 876, the Supreme Court in effect found for the board when it ruled that the federal courts had no jurisdiction to review the board's actions in representation disputes.

The way for the count of ballots in the present proceedings was prepared by the comprehensive report wherein the board made its determination that the tallies should be on a system-wide basis. This system-wide election was sought by the B. of R. T., while the O. R. C. favored votes by constituent lines. The disputes arose when the B. of R. T. invoked the services of the board on July 1, 1943, and submitted authorizations signed by 1,468 road conductors and 4,477 road brakemen. Thus the total vote polled by the B. of R. T. in the conductors' election was more than 400 less than the number of signed authorizations it had submitted. Had its vote come

up to the number of its signed authorizations it would have won that election, too.

The board's determination in favor of the system-wide election was based on its finding that the Railway Labor Act requires it to deal with representation disputes between a "carrier" and its employees, there being no such phrases in the act as "representation unit" or "bargaining unit."

Definition of "Carrier"—The term "carrier" was defined by the board in some of its early decisions, and it has since adhered to that definition which was set forth in its first annual report in part as follows:

Where a subsidiary corporation reports separately to the Interstate Commerce Commission, and keeps its own payroll and seniority rosters, it is a carrier as defined in the act, and its employees are entitled to representation separate from other carriers who may be connected with the same railroad system. If the operations of a subsidiary are jointly managed with operations of other carriers and the employees have also been merged and are subject to the direction of a single management, then the larger unit of management is taken to be the carrier rather than the individual subsidiary companies.

It was after applying again this test that the board came to its reaffirmation of the conclusion it had previously reached in the Switchmen's case—that the New York Central Railroad Company, and its leased and operated subsidiaries, including the Boston & Albany, the Cleveland, Cincinnati, Chicago & St. Louis, the Michigan Central and the Toledo & Ohio Central, is a single carrier within the meaning of section 2, ninth, of the Railway Labor Act.

Public hearings in the present proceedings were held by the board at its Washington, D. C., offices on September 27 and 28, 1944. Originally the proceedings included also case R-1293, involving a request of the American Train Dispatchers' Association for an election among N. Y. C. train dispatchers. The board's report notes that R-1293 was closed before the hearings when A. T. D. A. withdrew its application.

Officers of Shippers Advisory Boards to Meet April 17

Current transportation problems will be discussed by the officers and the board of directors of the National Association of Shippers Advisory Boards at a special meeting at the Jefferson Hotel, St. Louis, Mo., on April 17.

Among the other subjects which will be taken up are land-grant rates, railroad labor's social security bills and the proposed legislation exempting railroads from the anti-trust laws. Consideration will also be given to ways of improving the quarterly forecast of car requirements, and the activities of the regional board's freight car efficiency committees during the present transportation situation will be reviewed.

The date and place of the annual meeting of the National Association of Shippers Advisory Boards will be set at this time.

Average Annual Wage Up 46% Since 1940

Based on mid-month count, the
1944 figure was \$2,664, com-
pared with 1940's \$1,825

Average annual compensation of railroaders, based on the mid-month count of employees, increased 46 per cent, from \$1,825 to \$2,664, between 1940 and 1944, according to data presented in the latest issue of the "Monthly Comment on Transportation Statistics," published by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. If the computation be based on the monthly count of employees who received any pay, the increase becomes 45.4 per cent—from \$1,651 to \$2,400.

Straight-Time Pay Rose 31%—The foregoing figures include overtime, the 1944 mid-month-count figure with overtime eliminated being \$2,296 compared with 1940's \$1,746, an increase of 31.5 per cent. On the basis of the monthly count of employees who received any pay, the 1944 average wage excluding overtime was \$2,069 compared with 1940's \$1,580, an increase of 30.9 per cent. Meanwhile the data on average straight time hourly earnings show that these increased 27.2 per cent between 1940 and 1944—from 70.6 cents to 89.8 cents.

The percentage increases in hourly earnings ranged from 21.2 per cent for train and engine service employees to 36.9 per cent for the maintenance of way and structures group. The comment points out that these increases in hourly rates are largely the result of the general increases of the December, 1941, and January, 1944. And the higher percentage for the maintenance of way and structures group "is explained by the fact that the large number of the lower paid section men and extra gang men included in this group received increases under the agreements which were proportionately greater than those of employees in the higher wage brackets."

M. of W. Men Profit Most—The maintenance of way and structures group also fared relatively best in the matter of an average annual wage. On the basis of the mid-month count, the group's average 1944 wage, including overtime, was \$2,021, compared with 1940's \$1,234, an increase of 63.8 per cent. Next came the maintenance of equipment and stores group with its average annual wage, on the same basis, up 55.5 per cent—from 1940's \$1,711 to 1944's \$2,661. The 1944 average for train and engine service employees was \$3,580, up 39 per cent from 1940's \$2,576.

(Continued on page 685)

Berge Charts Way for Private Enterprise

It must be "free"; rail rates are "crucial"; "private security" ruled out

Expressing in his peroration the hope that this country, after the war, "will decide to make free enterprise work," Wendell Berge, assistant attorney general, last week told the eighth Institute of Human Relations, meeting at Chapel Hill, N. C., that "we must have the courage to make our economy free" if the full employment and full production that must be achieved are to be secured by the "free and competitive enterprise route."

Implies RR's Made Their Own Rates

"We cannot have full production under a free enterprise system if the producers have agreed not to produce," said Mr. Berge. "We cannot have an expanding market if the sellers have agreed to allocate territories and not to venture beyond the self-imposed limitations. We cannot develop new and more efficient methods of production, nor can we develop new industries which can give needed employment, if industrial groups having access to the basic technology combine to suppress new developments. We cannot have an expanding economy if private combinations of railroads and other transportation agencies control the rates we pay for transportation. We will not get far towards the solution of the hard and realistic problem of providing jobs if we talk free enterprise but are content to live in an economy hemmed in and thwarted by restrictions, governmental or private."

The speaker then proceeded to outline certain "almost customary" practices which, he said, "prevent the expansion of our economy." Among these, he mentioned international and local cartel agreements that "prevent" invasion of "restricted areas" by the parties; "private agreements to suppress technology" as illustrated in "long life lamps" and the "everlasting match"; agreements to maintain high prices; and "private restrictions" used to close plants and exterminate small business.

Rates Which Move Goods Condemned—Finally, he continued, are those "private restrictions" which, in his words, "operate to close off the avenues of transportation and communication." They have, he asserted, "choked off the economy of parts of our own country, and treated sections as though they were colonies, fit to grow the raw materials but dependent upon the industrialized East for manufacture." After telling his audience how wool is moved 1,200 miles from the ranges of the West to Boston, fabricated, and "then shipped back again to the West," all "because of freight rate discriminations against the West," Mr. Berge proceeded to give "a few instances" to "make clear the paralyzing effects of unjust discrimination in the freight rate structure."

Giving what he said were the carload lot rates per hundred pounds to Chicago from

southern and eastern points about equally distant, he compared 98 cents from Hickory, N. C., to 85 cents from Baltimore on furniture; \$1.58 from Macon, Ga., to \$1.12 from Philadelphia on work clothing; \$1.16 from Atlanta to 99 cents from Endicott, N. Y., on shoes; and 62 cents from Griffin, Ga., to 47 cents from Baltimore on canned vegetables. In other illustrations, he compared I.C.C. rates in the same way. "Governmental reports," he said, show that "goods subject to class rates, so important in the marketing of industrial products, must pay rates 37 per cent higher in the South than for comparable services in the East; and in the West these services are 46 to 71 per cent higher than in the East."

Glee at Ga. Suit—However, the assistant attorney general continued, "an approach to the solution of these problems of private transportation restrictions has been made in the case filed by the Department of Justice against the western railroads, and in the original action filed by the State of Georgia in the United States Supreme Court against the eastern and southern railroads." The Supreme Court, he said, in holding that it had jurisdiction in the Georgia case, "sustained the contentions of Governor Arnall that the anti-trust laws apply to private rate-fixing combinations of railroads which prevent carriers from filing freely with the Interstate Commerce Commission new rates which may be competitive with those of other carriers."

Pointing out the similarity of the arguments in the Georgia and the western railroads cases, Mr. Berge remarked that "the questions raised by these suits have a very vital bearing upon our post-war economy, since transportation rates are crucial to the prospects of many new industries as well as to the survival of many old ones. These questions are also vital to the future economic welfare of the South and the West."

In conclusion, the speaker developed his idea that, "if the free enterprise system does not work—if it does not provide us with an economy which can run to capacity and provide the jobs, we will not be able to take refuge under an ideal of free enterprise. If the economy becomes restrictive again we must expect demands for increasing governmental control. . . . An enormous and a striking opportunity lies ahead. We now know what American industry can do when it sets its mind to produce. . . . To do this in the American way, however, our economy must be free; new enterprise must be given its chance and no private security Maginot lines must be permitted to dominate either our economy or our thinking."

Reopens Santa Fe Truck Case

The Interstate Commerce Commission, Division 4, has reopened for reconsideration the No. MC-F-2289 proceeding involving the application of the Atchison, Topeka & Santa Fe and its subsidiary, the Santa Fe Trail Transportation Company, for authority to acquire from the Hall Motor Freight Company operating rights and property covering a truck route between Pueblo, Colo., and Wichita, Kan. The original report by Division 4 was adverse (see *Railway Age*, November 4, 1944, page 699).

South's Grain Rates Prescribed by I. C. C.

Basic structure unchanged as some downward adjustments are ordered

Making no "material change in the form of the rate structure" involved in Interstate Commerce Commission proceedings in I. & S. No. 4208 and related cases dealing with rates on grain and grain products to, from and within the South, the commission has issued a report of 140 mimeographed pages, setting forth 28 findings, bringing this long-pending investigation to a conclusion. Numerous downward adjustments were prescribed in specified proportional and combination rates to the South, and ex-rail and ex-barge proportional rates from Mississippi river gateways south of Memphis were established. Rates on carload and I.C.C. shipments within the South were left undisturbed, except for modifications for proportional application from ports and gateways.

First Report in 1940—Two proposed reports have been issued in these proceedings, which embraced not only I. & S. No. 4208 but No. 17000, part 7-A (the so-called Hoch-Smith inquiry insofar as it concerned the South), and also some 18 other related rate cases and 7 fourth-section cases. The earlier proposed report, made public in January, 1940, was by Examiners A. R. Mackley and G. J. Hall. It recommended a general revision of local rates within the South and of various proportional rates, and also suggested an extension into the South of rate-break combinations applicable in the western district.

The later proposed report, made public in August, 1943, was by Commissioner Johnson, having been prepared by Examiner F. M. Weaver. The recommendations of this report were to make the rates within the South, from all adjacent areas into the South, and to and within the Southwest, on the basis of a prescribed mileage scale, applying one-factor through rates and canceling proportionals and rate-break combinations. Though differing in various respects from the proposals in the earlier examiners' report, the commission's conclusions "support the general plan" of that report. The system of one-factor inter-territorial rates proposed in the second report was not adopted by the commission.

Local Rates Undisturbed—No general revision of local rates within the South was ordered by the commission, which found that shippers and consignees in the South do not object to the prevailing level of these rates, "and are apparently content that this traffic shall bear a somewhat greater share of the general transportation burden than it does in the other territories." Until recently, the report pointed out, grain and grain product rates within the South have been, in general, on an any-quantity basis, there being no distinct carload rates. Rates from other and more important grain producing territories into the South have always been of much importance, however,

and "very competitive in character," it was explained.

The report outlined certain "peculiarities" of the grain rate structure, under which, particularly in Western territory where grain production is greatest, the through rates reflect combinations of local rates from the farms to the large primary markets plus proportional rates therefrom. Rates from Western Trunk-line, Southwestern and Central territories to the South generally are made by combination on the so-called border gateways on the Mississippi and Ohio rivers, and on the so-called Virginia cities, though through one-factor rates prevail to a large part of the South from that part of Official Territory east of Buffalo and Pittsburgh but not including New England, and also from the border territory made up of the southern parts of Ohio, Indiana and Illinois and southeastern Missouri.

An "extensive and quite complicated" system of equalized combinations of rates through Cincinnati, Louisville, Evansville, Cairo, St. Louis and Memphis has existed for many years, the report added, and the commission has "often recognized the desirability of maintaining and protecting it." No similar equalization has been developed through gateways south of Memphis, or with respect to grain originating in states south of Kansas, with certain exceptions, it went on to say. Also brought out was the fact that such equalizations "inevitably result in frequent inconsistencies from a distance standpoint."

Transit Privileges—In general, the commission observed, flour and other manufactured grain products move on the same rates as grain and "free transit is allowed in very liberal measure." Certain transit requirements prevailing in the South were found to be unreasonable or unduly preferential, however, particularly a provision that carload shipments of grain products stored in transit on southern lines must move therefrom under a 24,000 lb. minimum, while grain milled or products blended in transit at such points may move therefrom as grain products in any quantity. Proportional rates from river gateways should be made applicable on l.c.l. lots shipped from storage as well as from the transit points, the commission found.

With respect to the proposal to substitute one-factor through rates for the present combinations on border gateways, and alternative general and specific proposals that the proportional rates be reduced, revised to be more nearly consistent from a distance standpoint, enlarged through extension to additional gateways, or modified to permit departures from the rate-break rule, the commission made a number of findings, which may be summarized as follows:

The present method of making rates from other territories into the South, by combinations of proportional rates beyond the river gateways with proportional or local rates to those gateways, is not unreasonable. On traffic to the South, the contemporaneous use of both transit balances and proportional rates beyond Chicago is unlawful and for the future should be corrected by canceling the present proportionals from Chicago to the Ohio river for beyond into the South, and establishing in lieu thereof transit at Chicago on one-factor rates to the Ohio river.

The proportional rates for the transportation of grain and grain products in carloads, in interstate commerce, from specified Gulf and South Atlantic ports to southern destinations, applicable

Tolls in Westchester Parkways

Governor Dewey of New York has approved a bill, passed by the legislature, authorizing Westchester County (which bounds New York City on the north) to levy a toll of 10 cents upon automobiles using the county's extensive system of landscaped motor highways, from which commercial traffic is excluded.

The county had attempted before to levy tolls for the use of these highways but had been prevented from so doing because some \$2,500,000 of federal aid money had been advanced toward the cost of these parkways and a "joker" in the federal aid highway act forbids the levying of tolls on roads to which federal money is contributed.

The new legislation provides for the reimbursement to the federal government of its \$2,500,000 contribution (an insignificant fraction of the total cost of the Westchester parkways) so that the federal aid toll prohibition will become inoperative. The burden of the cost of the parkway system has been borne by real estate taxpayers of Westchester County, to whom considerable relief will be afforded if the road system is made in large measure user-supported.

The state Automobile Club has announced its intention of attacking the legislation in the courts.

to shipments arriving at such ports by water, whether or not milled or processed at the ports, are unreasonable to the extent that they exceed 85 per cent of the local rates contemporaneously applicable between the same points. Such rates should be applied in substantial accordance with the plan of the adjustment of rate-break combinations on primary markets and river gateways.

Rates were prescribed on ex-barge grain from river gateways to the South, where local rates had prevailed heretofore. Hereafter, proportional carload rates cannot exceed 85 per cent of local rates contemporaneously applicable; proportional l.c.l. rates may be made 5 cents higher.

On shipments from all origins, including the Southwest, proportional rates from Memphis to Southeastern Territory were prescribed 11 cents less than from St. Louis (instead of the present 7 cents). In order to equalize rates from St. Louis and Ohio river gateways on shipments from Kansas City and points basing thereon, and on certain grain moving through Omaha, establishment of shrinkage proportionals was required, such rates to be, from St. Louis 7 cents, from Evansville and Cairo 4 cents and from Louisville and Cincinnati 1 cent, higher than the rates from Memphis thus prescribed. On shipments originating at Kansas City or origins beyond and basing thereon, from St. Louis to Mississippi valley territory, including Memphis, Vicksburg, Miss., and Natchez and New Orleans, shrinkage proportional rates 4 cents less than the normal proportional rates were prescribed.

In general, no finding was made to change the situation under which New Orleans dealers claim they are accorded a lesser rate equalization from adjacent areas than those at northern gateways. Likewise, the complaint of St. Louis as to lack of equalization of that gateway with Indiana transit points and Ohio river gateways, on grain moving from Indiana to the South, was found not sustained. In addition, proportional rates from Louisville to Southeastern Territory on Indiana grain were found not unlawful.

In connection with the adjustment of rates on traffic from shrinkage territory, the commission held that carriers to and from St. Louis and Ohio river crossings should adjust their rates so that no portion of Illinois, Wisconsin, Minnesota, North Dakota or South Dakota will be included in non-shrinkage territory.

A reduction of 3 cents was prescribed in rates from origin groups in Oklahoma, and from origins in Kansas on and south of the main line of the Union Pacific from Kansas City to

Denver, to Memphis for southern destinations beyond. Rates from Oklahoma origin groups to Memphis on shipments destined to Carolina territory were required to be reduced 1 cent. Rates from Oklahoma to Arkansas, to Vicksburg and Natchez, and to specified Louisiana groups were not disturbed. Publication of the reduced rates prescribed from Oklahoma and related origins in a sectional plan tariff was required.

Proportional rates from Memphis to Tennessee, Kentucky, Ohio river gateways and the Virginia cities, and from St. Louis to Frankfort, Ky., were revised.

No change was required in rates from southwestern Missouri to Memphis, Vicksburg, Natchez, Louisiana and Arkansas.

Restriction of proportional rates from Kansas City to Texas and Louisiana groups to shipments subject to minimum inbound rates of 14 cents to Kansas City was found to be not unlawful.

On shipments from Western trunk-line territory and the Southwest, inclusion of New Orleans in Louisiana group 4 likewise was found to be not unlawful.

Various adjustments on rates from Texas to Mississippi river gateways were prescribed. No change was required on shipments to New Orleans, not destined beyond, to Arkansas, or Louisiana points west of the Mississippi. To Memphis, Vicksburg and New Orleans, on shipments destined beyond in the South, a reduction of 4 cents was prescribed. Proportional rates from these gateways to the South were prescribed at not to exceed 85 per cent of the local rates, subject to certain equalizing provisions.

The local 10th class basis was prescribed as the maximum for carload rates from Maryland, New Jersey, Delaware, Virginia, the District of Columbia, southern Pennsylvania, Southern New York and northern West Virginia to southern Virginia, North and South Carolina, Georgia, Florida, Alabama and Tennessee.

No changes were prescribed in rates from the Sikeston, Mo., group to the Mississippi valley, or in the relation to Evansville proportionals of group rates from southwestern Indiana and southeastern Illinois to Southeastern and Carolina territories.

On shipments from St. Louis and beyond when based thereon to southern Virginia and the Carolinas and routed through Toledo, rates for the movement beyond Virginia cities were limited to 85 per cent of corresponding local rates.

Charging of higher rates on rolled oats, oatmeal, farina and semolina than on flour and grits within and into the South was found unreasonable and unduly prejudicial.

One-factor through rates, lower than the rate-break combinations on Mississippi and Ohio river gateways, were prescribed from an enlarged north coast transcontinental group to the South, as were one-factor through rates on transcontinental shipments from California. The transcontinental rate from California to Memphis on continuous shipments was required to be increased to match the rate-break combination on Kansas City, the same as applicable on similar shipments from the north coast group.

Varying the order accompanying the report required publication of appropriate notices to make the prescribed changes effective on or before September 1. Commissioner Barnard did not participate in the disposition of the proceedings. Commissioner Miller dissented in part, objecting to the application to ex-water traffic through southern ports of the proportional rates approved for ex-rail traffic. "We should not undertake to prescribe proportional rates on this ex-water traffic without a further hearing to determine whether the rail carriers from these ports are put to a greater expense in connection with its interchange or transfer from barge or vessel to the rail lines than is the case in the interchange of traffic delivered at the ports by rail," he contended.

The report indicated that Commissioners Porter, Mahaffie, Splawn and Patterson concurred generally with the findings. The three last named briefly set forth their views on points on which they differed from the majority expression. Commissioner Mahaffie did not want to leave the rates within the South undisturbed; he saw much to commend it in the second proposed report's suggested one-factor rate basis. Commissioner Splawn considered the majority report a step in the right direction, but did not think it gave "adequate effect" to the "fundamental principles of rate making."

Opposes Security Bill; Favors Anti-trust Relief

Opposition to pending proposals to liberalize the Railroad Retirement and Railroad Unemployment Insurance acts and approval of legislation to exempt carrier agreements from the operation of the anti-trust laws are expressed in two reports which have been issued by the Transportation and Communication Department Committee of the Chamber of Commerce of the United States.

The report on "Railroad Social Insurance Legislation" asserted that there is no justification for any further "preferential" treatment of the employees of one industry; and it "strongly" recommended that pending legislation in that connection be not enacted.

"The present proposals for expansion of the railroad social security system," the report said, "would not only vastly increase transportation costs at the expense of the shipping and traveling public, but would go much farther in preferential treatment of railroad employees. They would enlarge existing retirement and unemployment benefits which are already generally far in excess of those provided under the Social Security Act for other classes of employees and would introduce far-reaching and costly new features not embodied in that act, notably unemployment insurance for sickness and accidents not connected with or resulting from employment.

"The railroads oppose the new proposals on the grounds that they would impose further unfair and discriminatory burdens on the carriers, that they would bestow inequitable and in some instances wholly unwarranted benefits on present and past employees, and that the plan, although involving a further increase in social security taxes upon both carriers and employees, would not be self-supporting."

The report on "Carrier Agreements" endorsed H.R. 2536, the bill recently introduced by Representative Bulwinkle, Democrat of North Carolina. As noted in the *Railway Age* of March 17, page 522, this

is broader than previous relief proposals in that it would cover such agreements as those relating to service and schedules as well as rate-making procedures. The report outlined provisions of the bill, meanwhile noting that carrier rate-making procedures have been developed "over a period of many years with the full knowledge and approval of the Interstate Commerce Commission, which has on occasion exercised the same veto power over rates recommended by conferences as over those initiated by individual companies."

The report further expressed the committee's belief that, with the safeguards provided in the Bulwinkle bill, "the agency created by Congress over the past years for the express purpose of regulating the rates and services of interstate carriers can be relied upon to do this in the public interest, and that the carriers complying with the orders of these agencies should be immune from application of the antitrust laws to the practices involved."

Acme Elects New Officers

Thomas W. Flynn, assistant to the president and secretary of Acme Fast Freight, Inc., has been elected vice-president in charge of operation with headquarters at New York. R. F. Locke, who has been associated with Acme Fast Freight since 1933, has been elected vice-president in charge of traffic with headquarters at Chicago. Lawrence A. Wilson, western regional manager and a member of the Acme organization since 1923, has been elected vice-president at San Francisco, Cal., and will supervise the Pacific Coast and Rocky Mountain territories.

Alton Gets Three New Diesels

Three new 4,000 hp. Diesel-electric locomotives, built by the Electro-Motive plant of General Motors at LaGrange, Ill., have been delivered to the Alton and will be placed in passenger service between Chicago and St. Louis, Mo. The locomotives, which are the first for passenger service to be built by General Motors since cessa-

tion of their manufacture in 1942, now make it possible for the railroad to provide Diesel-electric power to all of the Alton feature trains between the two points mentioned above. The trains include, in addition to the Ann Rutledge and the Abraham Lincoln, which already have Diesels, the Alton Limited and the Fast Mail. According to H. B. Voorhees, chief executive officer of the Alton, receipt of the new units will enable the road to shift steam locomotives formerly used on passenger runs to essential freight service.

New York Railroad Club to Hold "Electrical Night"

"B-29 Superfortress Armament" is to be presented by the General Electric Company when the New York Railroad Club holds its annual "electrical night" meeting at 8 p.m., April 19, in the Engineering Societies building, 33 West 39th street, New York. Charles E. Smith, vice-president, New York, New Haven & Hartford, will act as master of ceremonies.

Chester H. Lang, G. E. vice-president, will have as his topic, "A Look at Our War in the Pacific," and Moorhead Wright, Jr., aeronautics and marine engineering division, will give a "Demonstration of the B-29 Electrical Remote Control Gunnery System." "The Magnetic Wire Recorder" will be discussed by H. L. Perdiue.

Employment of Women Declined Between October and January

Class I railroads had 114,199 women employees as of the middle of January, a decline of 1,505 under the mid-October figure, but the total labor force declined relatively as much, leaving the proportion of women at 8.2 per cent, according to the latest report of the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. As of mid-January, 1944, there were 105,901 women employees, comprising 7.8 per cent of the total force. The total of all employees as of mid-January was 1,393,517, compared with 1,410,285 as of mid-October, 1944, and 1,357,252 as of mid-January, 1944.

The number of women in train and engine service continued to decline, there being 270 thus employed in mid-January as compared with 282 and 301 shown, respectively, in the 1944 reports for October and July. At the same time, however, women appeared again as yard firemen and helpers, there being four so classified in January as compared to none in mid-October. The July, 1944, report showed six women employed as yard firemen and helpers. There were 51 road passenger brakemen in January as compared with 43 last October and 67 last July. The assistant road passenger conductors and ticket collectors continued to comprise the largest group of women in train and engine service—201 in mid-January as compared with 221 last October and 209 last July.

As compared with mid-January, 1944, there were more women employed in four of the general divisions of employment and less in three. The latter were executives, officials, and staff assistants, where the drop was one, from 18 to 17; maintenance of way and structures; and maintenance



One of the Three New Diesel-Electric Passenger Locomotives Recently Delivered to the Alton

nance of equipment and stores. Largest increase as compared with the previous year was the 8,286 additional women employed in the professional, clerical, and general group.

That group, of course, still embraces the great majority of women railroaders—78,665 out of the 114,199 total reported for mid-January. As of that time, the women represented 34.45 per cent of the group's total. Next came the group embracing transportation employees other than train, engine and yard, of which 8.03 per cent were women.

In the maintenance of way and structures group, where 0.61 per cent of the employees were women, there were 768 of them working as section hands and 657 of them in extra gangs as of mid-January. In the maintenance of equipment and stores group, where the 20,716 women comprised 5.4 per cent of the total, there were 6,061 listed as coach cleaners, 4,671 as skilled trades helpers, and 4,621 general laborers in shops, enginehouses and power plants. In the transportation group embracing yardmasters, switch tenders, and hostlers, there were 40 women—39 of them switch tenders and one an outside hostler helper.

No Loaded Cars Being Sent Overseas, Says Pelley

"There is no basis for reports to the effect that great numbers of American freight cars are being forwarded overseas containing export freight," J. J. Pelley, president of the Association of American Railroads, said on April 7. All cars containing export freight, Mr. Pelley added, "have been, are, and will continue to be, unloaded at the ports and returned to the interior for railroad use."

The A. A. R. president pointed out that despite disruptions and difficulties resulting from the unprecedented snow storms in the East last winter, more cars of freight are now being loaded and moved than at the corresponding season in any year since the war began. The increase in total loadings for the week ending March 31 above the same week in 1944 was more than 6 per cent, he added, while loadings of grain and grain products were up 12 per cent.

Asks Congress to Tell States How to Tax Air Lines

The Civil Aeronautics Board in a 263-page report to Congress has recommended action against the "economic barriers of multiple and other burdensome taxation by states and their political subdivisions" of air lines. The report comes at the close of an investigation that followed the decision of the Supreme Court in the *Northwest Airlines case*, in which Minnesota had taxed the line's entire fleet, notwithstanding the fact that six of the seven other states through which the airline operated had each also taxed a portion of the same fleet. The decision was reported in *Railway Age* of May 27, 1944, page 1035.

To avoid multiple taxation of air carriers, the board recommends a federal statute to accomplish an "equitable apportionment of taxable property among the states" through which each line's operations are conducted. The statute would prescribe methods under which this tax-

able property would be allocated. Because there may be need for "some flexibility" in the application of the statute, the board recommended that the federal statute may provide for an existing federal agency to interpret and administer the formula, working with tax experts nominated by the states.

The board was critical of the taxation by the states of aviation fuel used in interstate commerce, stating that such taxation threatens to "impede the development" of air transportation. It noted that well over half of the states had consistently refrained from the taxation of aviation gasoline.

Labor's Social Insurance Bill Opposed by N. I. T. League

The National Industrial Traffic League has filed with the House committee on interstate and foreign commerce a statement in opposition to H. R. 1362, the bill sponsored by Representative Crosser, Democrat of Ohio, which embodies the Railway Labor Executives Association program for liberalizing the Railroad Retirement and Railroad Unemployment Insurance acts. Hearings on the bill are now in recess, but are expected to be resumed this month.

The N. I. T. League statement set forth, among others, objections to those provisions of the bill which might extend the coverage of the retirement and unemployment acts to such industries as warehousing and others performing accessorial services for the railroads. Also, it contended that the added costs would be passed on to shippers who might find themselves in a position of paying higher freight rates to provide preferential benefits for railroad employees, while the social security taxes they paid directly would be providing their own employees with the less favorable benefits of the general social security system.

Big 1946 Truck Program

A motor transport equipment program calling for the construction of 1,063,000 trucks during 1946 has been announced by the Highway Transport Department of the Office of Defense Transportation, which has presented it to the War Production Board for consideration and action by the Requirements Committee.

In addition to trucks, the 1946 program calls for 50,000 truck-trailers, 250,000 truck and trailer bodies and 6,000 attachment third axles. The truck program includes 552,000 light, 444,000 medium, 55,000 light-heavy and 12,000 heavy-heavy trucks. The truck-trailer program includes 41,000 general freight and 9,000 special type truck-trailers.

I. C. C. Lets S. P. Affiliate Operate All-Motor Service

Reporting on further hearing in the No. MC-F-2073 proceeding, the Interstate Commerce Commission, Division 4, has removed restrictions which would have prevented the Pacific Motor Trucking Company, affiliate of the Southern Pacific, from continuing all-motor operations over a route between Reno, Nev., and Hawthorne, which it is acquiring from Valley Motor Lines, Inc. The prior report had imposed the usual restrictions designed to insure that the highway service would remain

auxiliary to rail service, including the so-called prior-or-subsequent-haul-by-rail condition.

Since Valley was retaining its routes between Reno and California points and desired interchange arrangements with Pacific, it joined in the petition for removal of the restrictions. The petition was supported by a "governmental agency" which objected to any diminution or curtailment of existing all-motor through service between Hawthorne and San Francisco Bay ports. In granting the relief sought, the commission required cancellation, as "monopolistic in character," of that section of the proposed sales agreement which would have set up preferential interchange and solicitation arrangements between Valley and Pacific. Also it reserved the right to impose whatever conditions it may find necessary in the future.

The majority report represented the view of Commissioners Porter and Mahaffie. Commissioner Miller, dissenting, asserted that removal of the restrictions leaves the proposed service "in no wise" auxiliary to or supplemental of railroad service. Moreover, he thought that the one-line through service was better than that proposed, and thus the carriers should be left in status quo by denial of the application.

Post-War Freight Prospects Analyzed by R. B. A.

"While the railways cannot expect to hold their present high proportion of the nation's entire traffic volume, they may well retain in the post-war period a larger proportionate volume than (they had) in the pre-war years." This is one of the conclusions about post-war American freight movement included in a report published by the Railway Business Association under the title, "Freight Transport in the United States . . . Pre-war, War, and Post-war," by P. Harvey Middleton, executive vice-president of the association.

For various reasons during the war the railroads, in addition to more than doubling their own freight movement, have been able to take over considerable freight from other handlers, including petroleum from coast-wise tankers, cargo from the former coast-wise shipping business, and some business from truckers which could not get adequate parts, new trucks, or tires. As a result the railroads' percentage of the nation's total freight haul has increased from about 62 per cent in 1940 to around 71 per cent at the present time. Some people have expected that this increased ratio of traffic would be totally lost, and more, to the railroads after the war. But the R. B. A. analysis of the situation gives reasons why the carriers may hope to hold some of these percentage gains into the post-war period.

This study is the fourth in a series issued by the R. B. A. in the last two years, of which the first, published in May, 1943, was called "Transportation—Pre-war and Post-war"; the second, published in November, 1943, discussed "Oil Industry and Transportation—Pre-war and Post-war"; while the third, published in February, 1944, covered "Passenger Transport in the United States 1920-1950."

The present study, which includes sta-

tistical tables, contains estimates on the total volume of after-the-war freight movement in the United States. It analyzes in seven chapters the share which the railroads may hope to gain or hold of different kinds of freight movement. To support its forecasts the report goes extensively into how the railroads have fared with different kinds of freight in recent years. Special chapters take up the "Transportation of Grain, Fruits and Vegetables, Dairy and Poultry Farm Products," also "Live Stock by Rail and Truck," and a chapter considers "Forest Products, Mine Products and Manufactures." The railroads' heaviest competition for these products comes from the highway. Special later chapters discuss "Inland Waterways" and "Air Transportation—Post-war."

In his opening chapter Mr. Middleton recalls that from 1923 to 1941 the railroads spent more than \$10,000,000,000 for rehabilitation and modernization, and points out that but for this, the roads could not have "met so fully the emergency of the present war," in which they "are currently handling 97 per cent of all organized troop movement, nearly 90 per cent of all Army freight and express (and) about 90 per cent of all Navy freight. . . ."

A major reason cited for the difficulties the roads may have in holding business after the war is "subsidized competition," and the importance of this is stressed throughout the booklet.

"There is hardly any product or commodity that the railroads cannot transport on the long haul—and frequently on the short haul—cheaper and more efficiently than it can be moved by any other form of 'for hire' transport, if all costs of providing and performing the service are taken into consideration. . . . The ability of the railroads to serve the nation will depend . . . upon the fairness of the rules laid down . . . for the transportation industries . . . The railroads . . . will be ready . . . to meet the problems of peacetime transportation with the same efficiency (as during the war), if competitive equality is established."

A. A. R. Members Consider Shortage of Transportation

Railway executives from all parts of the country were present at a meeting of the Association of American Railroads at the Stevens Hotel, Chicago, on April 4, to consider the present transportation situation, including the existing shortages in man-power and freight cars. Various roads offered suggestions as to ways and means of conserving man-power and a committee was named to weigh suggestions and report on them to the members. Among the proposals was one for more through l. c. l. cars, by-passing congested transfer points where acute shortage in station labor exists, and another for lighter loading of westbound merchandise cars in order to reduce excessive station labor required in stowing cars for heavy loading, such lighter loaded cars to break bulk at smaller, less congested transfer points.

The discussion of the freight car situation brought out that much of the difficulty involved in the present situation, where the displacement of cars of home ownership in

certain territories is extremely acute, occurred because of the severe winter conditions and the heavy snows of January and February which prevented the placement, unloading and prompt return to the West of thousands of freight cars. In view of the abnormal situation existing with regard to war freight, the variance from normal freight car distribution could not be corrected as rapidly as would otherwise have been possible. However, the movement of empty cars from the East through the Chicago gateway is now reaching approximately 1,600 cars per day and at this rate the railways in the wheat growing territory may be able to accumulate enough empty cars to take care of the impending wheat harvest.

The car situation is complicated by the abnormal conditions existing as to the movement of l. c. l. freight. Almost ever since the war began, there has been a definite trend toward an increase in l. c. l. freight, brought about by the fact that civilian goods are in general no longer obtainable in carload quantities, resulting in a continuing increase in the amount of such goods shipped in l. c. l. lots. A further factor has been the continuing inability of highway trucks to handle normal quantities of this l. c. l. business. Since the first of this year particularly, the highway trucks have been unable to meet the increasingly difficult problems of man-power, gasoline and tire shortages, as well as the lack of competent mechanics to maintain the highway vehicles. As a result, much of the l. c. l. traffic that in peace-times was handled by truck has now been dumped upon the railways. This additional load has required the use of a large number of cars that would otherwise be available for the loading of carload freight.

The committee previously appointed to consider the increase in the per diem rate to \$1.25 per car per day failed to reach a unanimous agreement and action on this subject was deferred.

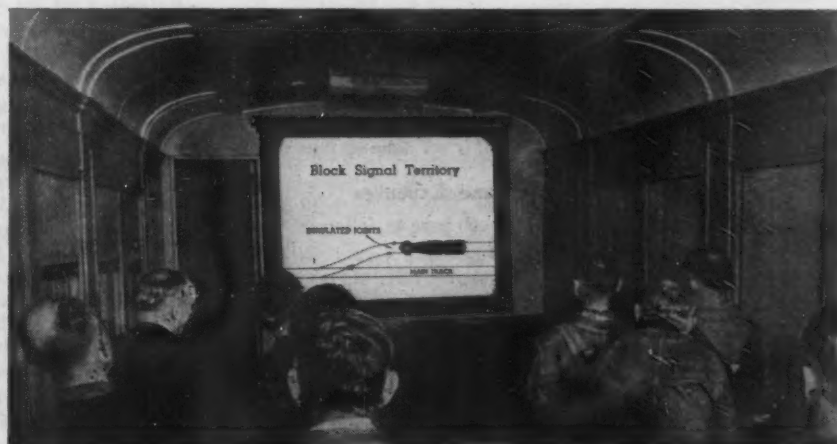
The members were warned by Col. J. M. Johnson, director, Office of Defense Transportation, that the end of the war with Germany would not result in easing the burden on the nation's transportation lines. Colonel Johnson emphasized that the expected shift in the war effort to the Pacific

theater of operations would involve transcontinental movements of large numbers of men and vast quantities of material, in addition to longer hauls from the manufacturing centers to the Pacific Coast ports. He stated that little relief could be expected through the use of ships from Atlantic ports to move through the Panama Canal, since, because of the long water-borne supply lines in the Pacific, and the necessity for fast transportation, the conservation of ships would be essential and that land transportation would have to be adjusted to permit the shortest possible journeys for ships. Colonel Johnson also stated that the 132,000 cars of grain to be moved for export within the next few months will largely be routed via the gulf ports in order to conserve freight cars.

Sound Films Teach Safety

A sound slide film entitled "Rules Governing the Operation of Switches" is now being exhibited at various points along the Missouri Pacific as a part of its program of educating employees in safety practices. The film shows by means of drawings and photographs projected in enlarged size on a screen, accompanied by an explanatory narration delivered via loud-speaker from electrical transcriptions, the meaning and practical application of the various parts of the rules governing the operation of switches. In addition, the films illustrate the proper method of operating certain types of switches. Another part of the film points out the speed requirements through various sizes of switches and turnouts, while a third portion is devoted to rules governing operation through switches in automatic block signal territory, operation through hand operated switches by signal indication, and rules governing remotely controlled switches, electrically locked switches and spring switches.

Shown in conjunction with this film, is another film graphically outlining the details of three serious train accidents that resulted from failures to comply with operating rules at switches. Progressive drawings showing track layouts, movements of the trains and engines involved and other details are used in explanation of the causes of these accidents. The film follows the pattern of the accident bulletins issued by



Visual Presentation Accompanied by Uniform Recorded Interpretation Are Helpful in Securing Proper Understanding and Compliance with the Rules

Canadian Pacific Railway Company

SIXTY-FOURTH ANNUAL REPORT OF THE DIRECTORS

(Abridged)

To the Shareholders:

The results of the year's operations were marked by increased gross earnings and lowered net income. Labour costs rose sharply as a result of the wage award granted by the National War Labour Board, while traffic rates remained at their low, pre-war levels. Working expenses, with taxes, took a larger proportion of the gross earnings than in any year since the completion of your Company's transcontinental line.

The fifth year of the war in Europe, with its decisive attacks upon the enemy, placed additional burdens and exacting responsibilities on transportation agencies. Your Company was called upon to handle an unprecedented volume of traffic, ton miles of freight carried and passenger miles transported exceeding those in the previous record year, 1943, by approximately 10%. That this was accomplished notwithstanding the problems created by wartime conditions—shortages of manpower, equipment and materials as well as restrictions of various types—gives evidence of efficient discharge by your Company of its share of the responsibilities.

Income Account

| | |
|--|---------------|
| Gross Earnings | \$318,871,034 |
| Working Expenses (including taxes) | 275,711,370 |
| Net Earnings | \$ 43,159,664 |
| Other Income | 12,371,315 |
| | \$ 55,530,979 |
| Fixed Charges | 20,831,149 |
| Net Income | \$ 34,699,830 |
| Dividends on Preference Stock: | |
| 2% paid August 1, 1944 | \$2,521,391 |
| 2% payable February 1, 1945 | 2,521,391 |
| | \$ 5,042,782 |
| Ordinary Stock | |
| 2% paid December 1, 1944 | 6,700,000 |
| | \$ 11,742,782 |
| Balance transferred to Profit and Loss Account | \$ 22,957,048 |

Profit and Loss Account

| | |
|---|---------------|
| Profit and Loss Balance December 31, 1943 | \$231,234,218 |
| Dividend of 2 per cent. on the Ordinary Stock, declared from the earnings of the year 1943, paid March 31, 1944 | 6,700,000 |
| | \$224,534,218 |
| Balance of Income Account for the year Ended December 31, 1944 | \$22,957,048 |
| Amount received from Great Northern Railway Company for release from obligations under joint section agreement | 4,500,000 |
| Portion of steamship insurance recoveries representing compensation for increased cost of tonnage replacement | 1,045,235 |
| | \$ 28,502,283 |
| | \$253,036,501 |
| DEDUCT: | |
| Net exchange charge in respect of steamship insurance recoveries and expenditures for new steamships | \$ 643,254 |
| Miscellaneous—Net Debit | 678,239 |
| | \$ 1,321,493 |
| Profit and Loss Balance December 31, 1944, as per Balance Sheet | \$251,715,008 |

(The final dividend of 3 per cent. on the Ordinary Stock for the year 1944 which was declared subsequent to the end of the year and is payable March 31, 1945, amounting to \$10,050,000, is not deducted from the Profit and Loss balance shown above.)

Railway Earnings and Expenses

The results of railway operations compare as follows:

| | 1944 | 1943 | Increase or Decrease |
|--|---------------|---------------|----------------------|
| Gross Earnings | \$318,871,034 | \$297,107,791 | \$21,763,243 |
| Working Expenses (including taxes) | 275,711,370 | 247,896,224 | 27,815,146 |
| Net Earnings | \$ 43,159,664 | \$ 49,211,567 | \$ 6,051,903 |
| Expense ratios: | | | |
| Including taxes | 86.46% | 83.44% | 3.02 |
| Excluding taxes | 78.92% | 72.82% | 6.10 |

GROSS EARNINGS were 7.3% greater than in 1943, establishing the sixth successive annual increase. Earnings from freight, passenger, mail and sleeping and dining car services were larger than in any prior year of your Company's operations.

FREIGHT EARNINGS increased by \$15,175,434, or 7.0%. Although the output from the Dominion's manufacturing industries continued to flow freely in response to the demands of war, the principal traffic increases were in agricultural products. The opening of important export markets, together with a marked improvement in shipping supply, made it possible for Canada's main food products—chiefly wheat—to move in vast quantities.

Earnings from grain and grain products increased \$14,900,000, or 33%. Grain handlings on your Company's lines reached a total of 377 million bushels, 7 million more than in the previous peak year of 1928 and 120 million more than in 1943. It is estimated that at the end of the year 340 million bushels of wheat remained to be shipped by all railways from the Prairie Provinces, compared with 465 million bushels at the end of 1943.

Revenue freight traffic totalled 27,375 million ton miles, 2,425 million greater than in 1943. Increases of 11.1% in the average daily mileage of freight cars on line and of 0.9% in the average of ton miles per car mile reflect added utilization of the limited equipment available. The average revenue per ton mile was 0.85 cents as compared with 0.87 cents in 1943.

PASSENGER EARNINGS increased by \$5,141,445, or 10.0%. Further expansion in the volume of civilian traffic, chiefly due to wartime conditions, and continuing heavy movements of the armed forces resulted in an increase of 4.9% in passengers carried. The average passenger journey was 157 miles, compared with 150 miles in 1943.

OTHER EARNINGS increased \$1,446,364, or 5.2%. Increases occurred in revenues from sleeping, tourist and dining car operations. Net payments for hire of equipment decreased.

WORKING EXPENSES increased 11.2%. Exclusive of taxes, the increase in expenses was \$35,299,336, representing one and one-half times the increase in gross earnings. The ratio of expenses to gross earnings increased from 72.82% to 78.92%.

Wage payments charged expenses during the year were \$20,283,548 greater than in 1943. Higher wage rates accounted for most of this increase. In compliance with findings and directions of the National War Labour Board, a general advance in rates of six cents per hour was made, retroactive to March 3, 1943, for maintenance of way employees and to September 15, 1943 for other classes of railway employees. The total increase in payrolls charged working expenses and other accounts in 1944 by reason of these awards is computed at \$14,639,000, of which \$3,972,000 pertained to the year 1943.

The provisions made for maintenance expenditures which were necessarily postponed because of war conditions amounted to \$6,500,000.

MAINTENANCE OF WAY AND STRUCTURES EXPENSES increased by \$7,972,687. The year's programme was again restricted to repairs and replacements essential to safe and efficient operation. During the year 1,447,254 treated and 1,647,063 untreated ties were placed in track, 637 single track miles of new rails were laid and rock ballast was applied to 66 miles of track. Tie plates to the number of 3,538,918 and rail anchors numbering 1,724,444 were also installed. The testing of rails for hidden defects by the use of the Sperry detector car covered 8,344 miles of track.

MAINTENANCE OF EQUIPMENT EXPENSES increased by \$8,724,395. Heavy repairs to motive power and rolling stock included the shopping of 732 locomotives and 26,617 freight cars. Arch bar truck frames on 516 cars were replaced by cast steel truck frames. Stabilized trucks were applied to 183 refrigerator cars. Maintenance of passenger train cars involved the general overhauling of 1,231 units.

At the end of the year, 92.2% of locomotives and 97.8% of freight cars were in serviceable condition, compared with 92.4% and 97.6%, respectively, at the end of 1943.

TRANSPORTATION EXPENSES amounted to \$111,381,811, an increase of \$15,767,851, or 16.5%. The ratio to gross earnings was 34.93% compared with 32.18% last year. Higher wage rates and rising prices for materials more than offset the improvement in performance indicated by the following averages:

[Advertisement]

| | 1944 | 1943 |
|---|--------|--------|
| Freight Train Load—gross tons | 1,785 | 1,729 |
| Freight Train Speed—miles per hour | 16.2 | 15.9 |
| Freight Car Movement—miles per car day | 47.8 | 43.0 |
| Freight Train Fuel Consumption—pounds per 1,000 gross ton miles | 105 | 106 |
| Gross Ton Miles per Freight Train Hour | 28,913 | 27,435 |
| Passenger Miles per Train Mile | 141 | 132 |

Tons carried one mile and passengers carried one mile increased 9.7% and 9.9%, respectively, the additional business being handled with an increase of only 5% in train miles.

OTHER WORKING EXPENSES decreased by \$4,649,787. Railway tax accruals amounted to \$24,064,455. The provision for Dominion Income and Excess Profits Taxes amounted to \$20,400,000, as compared with \$27,750,000 for 1943. Expenses of dining car and news services increased \$1,116,362, and General Expenses were \$1,486,859 higher.

Other Income

Other Income amounted to \$12,371,315, a decrease of \$3,899,436. The net earnings of ocean and coastal steamships decreased by \$1,006,689. Earnings were lower as a result of smaller fleets in operation and, in the case of coastal operations, a decline in the traffic which had developed in connection with war projects in Alaska.

The net earnings of your hotels exceeded those of 1943 by \$515,406. A record volume of business was handled at your city hotels. Your resort hotels remained closed throughout the 1944 season.

Net earnings of the communications department decreased by \$451,123. Earnings from all types of communication service, except overseas messages were greater, but higher wage and material costs more than offset the increase in revenues.

Dividends paid by The Consolidated Mining and Smelting Company of Canada, Limited, were again at the rate of \$2.50 per share.

Earnings of the Northern Alberta Railways declined sharply as a result of higher costs of operation and a reduction in the transportation requirements of war projects in Northwestern Canada.

Management fees resulting from munitions production in your Company's shops were less than in 1943.

Payments of interest on land contracts again improved, reflecting the higher level of cash farm income in Western Canada.

Fixed Charges

Fixed charges, including the payment of guaranteed interest on Soo Line bonds, were reduced from \$22,499,600 in 1943 to \$20,831,149 in 1944, an improvement of \$1,668,451. The annual fixed charges of your Company were at their peak in 1938 when they amounted to \$26,853,756. They stood at \$26,186,545 in 1940 and since then have declined steadily, as a result of retirements of debt, and refundings at lower rates of interest, effected during the past six years.

Net Income

Net income for the year amounted to \$34,699,830 as compared with \$42,982,718 for 1943. This decline of \$8,282,888 is the net result of the decrease of \$6,051,903 in net earnings from rail operations, the decrease of \$3,899,436 in other income, and the improvement of \$1,668,451 in fixed charges.

Dividends

Dividends aggregating \$21,792,782, representing 4 per cent. on the Preference Stock and 5 per cent. on the Ordinary Stock, were declared from the earnings of the year. This amount includes the final dividend of 3 per cent. on the Ordinary Stock which was declared subsequent to the end of the year, payable on March 31, 1945.

Profit and Loss Account

Credit was taken for an amount of \$4,500,000 which the Great Northern Railway Company paid your Company in consideration of cancellation of an agreement approved at the annual meeting in 1914 which had provided for their use of the Kettle Valley Railway between Otter Summit (Brookmere) and Hope, B. C.; also for \$1,045,235, the portion of steamship insurance recoveries which represented compensation for increased costs of tonnage replacement.

Land Accounts

During the year 232,371 acres of agricultural lands were sold for \$1,373,018, an average price of \$5.90 per acre. Included in this total were 946 acres of irrigated land, sold at an average price of \$51.65 per acre.

Total collections on land account were the highest since 1928. Cash received totalled \$8,687,277, including \$621,296 derived from the leasing of coal, gas and petroleum rights. Disbursements for land and irrigation expenses, including taxes, were \$1,876,106 leaving net cash receipts of \$6,811,171. This was an increase of \$3,551,069 over the previous year.

Certain concessions to contract holders were again approved for the crop year 1944-45. The assistance to holders of farm contracts since this policy was inaugurated in 1932, has amounted to \$23,883,971.

Balance Sheet

The principal differences in the accounts as compared with last year and which are not dealt with elsewhere in this report are outlined below.

Property Investment increased \$15,225,197. The investment in rolling stock was higher by \$15,242,396. The net capital expenditures on other properties were offset by the credit resulting from the disposal during the year of the Berkeley Square property in London.

Current Assets at the close of the year exceeded Current Liabilities by \$88,484,875, representing a gain of \$12,004,774 from the previous year-end position.

Funded Debt was reduced during the year from \$115,917,744 to \$105,883,000, an improvement of \$10,034,744. Debt retirement totalled \$43,159,744 and new issues amounted to \$33,125,000. Funded Debt at December 31, 1938 was \$232,188,724, considerably more than double the present amount outstanding.

A Dominion Government Unemployment Relief loan of \$1,000,000 was repaid in February 1944 in accordance with the terms thereof.

Finance

Serial equipment obligations totalling \$5,914,000 matured and were paid. The balance of \$743,144 required to retire the 5% equipment obligations maturing on July 1, was deposited with the Trustee.

On March 1, The Chase National Bank of the City of New York entered into an agreement under which \$26,000,000 principal amount of Equipment Trust Certificates was issued, guaranteed as to principal and interest by your Company. This issue, designated as Series "G," maturing in equal semi-annual instalments from September 1, 1944 to March 1, 1954, inclusive, is payable in United States currency and bears interest at 2½% per annum. Under this arrangement, equipment which cost at the time of construction \$36,542,369 in Canadian funds is leased to your Company at a rental equal to the instalments of principal of and interest on the Equipment Trust Certificates.

The \$27,400,000 5% Collateral Trust Gold Bonds, maturing December 1, 1954, were called for redemption on June 1. The funds to meet this issue were deposited with the Trustee. In addition, the following securities were purchased and cancelled: 4% Convertible Collateral Trust Bonds, due 1949, to the amount of \$760,000 and 3½% Convertible Collateral Trust Bonds, due 1951, to the amount of \$1,600,000.

On November 1, 3½% Collateral Trust Bonds maturing November 1, 1974, were issued in the principal amount of \$7,125,000, secured by pledge of \$7,837,500 principal amount of Consolidated Debenture Stock. The proceeds were used to purchase \$7,500,000 5½% First Refunding Mortgage Bonds, Series "B," of the Minneapolis, St. Paul & Sault Ste. Marie Railway Company, maturing in 1978 and guaranteed as to interest by your Company. The latter bonds were turned in for cancellation, in accordance with the terms of the plan of reorganization, and your Company received \$2,529,150 Wisconsin Central Railway Company First and Refunding Mortgage 5% Bonds, Series "B," maturing April 1, 1959, and Voting Trust Certificates representing 10,200 "A" shares and 4,950 "B" shares of the Common Stock of Minneapolis, St. Paul & Sault Ste. Marie Railroad Company. The difference of \$3,285,375, between the principal amount of bonds issued and the principal amount or stated value of securities received, has been charged to Unamortized Discount on Bonds and will be extinguished over a period of twenty years by the saving effected in interest payments.

[Advertisement]

On February 1, 3% Serial Secured Notes to the amount of \$1,348,520 matured and were paid. On December 1, the balance of these notes maturing February 1, 1945, to February 1, 1948, inclusive, amounting to \$5,394,080 was prepaid.

On October 22, the First Mortgage Bonds of the Edmonton, Dunvegan and British Columbia Railway Company, aggregating \$2,420,000, matured and were paid by the Northern Alberta Railways Company. To place this jointly controlled subsidiary company in funds to meet this maturity, the subsidiary issued and sold at par to the two parent companies \$2,420,000 of its bonds, your Company's proportion of such issue being \$1,210,000.

The financial transactions referred to above resulted in the net retirement of \$10,034,744 of bonds, notes and other obligations, the discharge of a contingent liability of \$1,210,000 and a reduction of \$40,490,500 in the amount of Consolidated Debenture Stock pledged as collateral.

On October 1, the First Debenture Stock of the Dominion Atlantic Railway Company, amounting to £500,000, matured. Your Company placed this subsidiary in funds to meet the indebtedness and will be recouped by an issue of bonds of Dominion Atlantic Railway Company to the amount of \$2,235,000.

Pensions

Charges to working expenses for your Company's proportion of pension allowances, its contribution to the Pension Trust Fund and levies in respect of employees who come under the United States Railroad Retirement Act amounted to \$5,405,823. In view of the increases in basic rates of pay made during the year and the continuing high level of employment your Directors authorized an increase from \$1,000,000 to \$1,500,000 in the special contribution made annually to the Pension Trust Fund to assist in meeting the anticipated peak period of cost.

During the year 964 employees were retired on pension. At the end of the year there remained on the pension payroll 611 more than at the end of 1943.

Distribution by ages was as follows:

| | |
|---|--------------|
| Under 60 years of age | 330 |
| From 60 to 64 years of age, inclusive | 756 |
| From 65 to 70 years of age, inclusive | 2,794 |
| Over 70 years of age | 1,945 |
| | 5,825 |

Wage Negotiations

In the Annual Report for 1943 reference was made to the application to the National War Labour Board on behalf of all classes of railway employees affiliated with international labour organizations for increases in basic rates of pay sufficient to establish substantial parity with rates paid like classes of employees on United States railways.

The application of the employees was based almost entirely on developments in the railway wage structure in the United States, and the reply of the Canadian railways was directed mainly to the rebuttal of that argument.

The National War Labor Board decided this issue in favour of the Railways, finding that "The whole policy of control of wages and prices in this Country is entirely distinct and unrelated to the economy of the United States. This Board is satisfied that comparison of wage rates paid in the two countries is neither permitted nor required in the administration of P.C. 5963."

Nevertheless, the Board undertook on its own initiative a study of wage increases granted to other classes of labour in Canada since the war began and issued "Findings and Directions" increasing the rates of Canadian railway employees by six cents per hour for hourly rated employees, with equivalent increases for daily, weekly and monthly rated employees.

This wage increase combined with the incorporation of cost-of-living bonus in basic rates has raised average wage rates to a level approximately 25% higher than those in effect prior to June 1, 1941. Applications have also been made to the Board on behalf of various classifications of railway employees for annual vacations with pay. The Board has directed the Railways to inaugurate such annual vacations in every case, except one, the decision in which is now pending.

The recent developments in regard to increased wage rates for railway employees have followed much the same pattern as during the last war, with one very important difference. In the present instance the 1941 freight and passenger rates have remained unaltered, in compliance with regulations of the Wartime Prices and Trade Board, while in the previous war period the Railways were afforded immediate relief from increased costs.

Canadian Pacific Airlines, Limited

The curtailment of activities in Northwestern Canada, due to the completion of the main construction projects, is reflected in the reduction in certain types of traffic carried during the past year by your Air Lines. The movement of released personnel provided a satisfactory volume of passenger business but the reduction in temporary population brought about decreases in mail and express traffic.

There were 104,166 passengers carried in 1944, compared with 72,602 in 1943, an increase of 43%; freight transported was 8,027,442 pounds, compared with 9,528,913 pounds, a decrease of 16%; 1,436,153 pounds of mail, compared with 2,207,333 pounds, a decrease of 35%. During the year 5,984,602 revenue miles were flown, a decrease of 149,149 miles.

Unprofitable earnings prevailed on certain routes owing to low and uneconomic rates stabilized under the regulations of the Wartime Prices and Trade Board. Wage and material prices increased during the year and the results of operations showed a loss, after depreciation, of \$767,109. Provision for this was made by a charge to Other Income.

The participation of your Air Lines in the British Commonwealth Air Training Plan was reduced during 1944 by the closing down of two Training Schools in accordance with the policy announced by the Minister for Air. Two of the Overhaul Plants operated for the Department of Munitions and Supply were also closed and termination notices were received for the three remaining plants.

A further issue of 400,000 shares of the capital stock of Canadian Pacific Air Lines, Limited was taken in payment for \$2,000,000 of advances made by your Company in 1943. Additional net advances amounting to \$647,083 were made during the current year mainly for aircraft and engines, radio, etc. This brings your investment in this Company to \$7,400,000.

At the last annual meeting reference was made to the policy announced by the Government of Canada with respect to post-war aviation. Since that time, legislation has been enacted giving effect to that policy. The act prohibits the issue of a licence for a commercial air service owned, leased, controlled or operated by a carrier engaged in another form of transport unless the Governor-in-Council is of the opinion that it is in the public interest that such a license be issued.

Under this legislation, an Air Transport Board has been appointed to advise the Minister in all matters connected with the development of civil aviation and commercial air services. The act provides that all existing licences shall be reviewed by the Board, which may cancel or suspend any such licence as it sees fit. Provision is also made that such licences as are not cancelled or suspended by the Board shall cease to be valid one year after the termination of the war in Europe.

The Board is at present engaged in formulating regulations and will, no doubt, at an early date commence the work of reviewing existing licences. Officers of your Air Lines will be prepared to deal with the question of review when it is taken up.

Rates and Services

The limitations on passenger train service and the regulations for loading of freight cars which were previously put in effect by the Transport Controller, in the interest of insuring essential service and the maximum utilization of equipment, remained operative without change during 1944.

Consistent with your Company's plans for the further improvement of its passenger services as rapidly as the return to peacetime conditions will permit, experiments were carried out during the year in re-arranging and modernizing the interiors of sleeping and dining cars, using more colourful interior decorations, improved lighting, and other conveniences designed to increase the comfort of train travel.

Wartime Activities

Your Company was again honoured in having its Chateau Frontenac chosen as the scene of the Second Quebec Conference. The return of the President of the United States and the Prime Minister of Great Britain, with their staffs, to this locale for their deliberations pays eloquent tribute to the service and appointments of your renowned hotel.

Your ocean steamships continued to be operated under the Ministry of War Transport of the United Kingdom. Your passenger vessels have been engaged in carrying service personnel to the various battle fronts. Numerous ships have been allocated

[Advertisement]

Canadian Pacific Railway Company

General Balance Sheet, December 31, 1944

| Assets | | Liabilities | |
|---|-----------------|--|----------------------|
| PROPERTY INVESTMENT: | | CAPITAL STOCK: | |
| Railway, Rolling Stock and Inland Steamships | \$828,911,761 | Ordinary Stock | \$335,000,000 |
| Improvements on Leased Property .. | 97,753,968 | Preference Stock — 4% Non-cumulative | 137,256,921 |
| Stocks and Bonds—Leased Railway Companies | 130,073,481 | | \$472,256,921 |
| Ocean and Coastal Steamships | 37,767,236 | PERPETUAL 4% CONSOLIDATED DEBENTURE STOCK | \$357,335,729 |
| Hotel, Communication and Miscellaneous Properties | 96,512,653 | Less: Pledged as collateral to bonds and equipment obligations | 61,897,500 |
| | \$1,191,019,099 | | 295,438,229 |
| OTHER INVESTMENTS: | | FUNDED DEBT | 105,883,000 |
| Stocks and Bonds—Controlled Companies | \$70,910,449 | CURRENT LIABILITIES: | |
| Miscellaneous Investments | 43,603,850 | Pay Rolls | \$5,079,602 |
| Advances to Controlled and Other Companies | 8,701,194 | Audited Vouchers | 12,549,238 |
| Mortgages Collectible and Advances to Settlers | 1,811,753 | Net Traffic Balances | 3,096,323 |
| Deferred Payments on Lands and Townsites | 20,874,776 | Miscellaneous Accounts Payable | 7,897,433 |
| Unsold Lands and Other Properties .. | 17,962,278 | Accrued Fixed Charges | 1,242,070 |
| Unexpended Equipment Trust Deposit .. | 4,889,563 | Unmatured Dividend Declared | 2,521,391 |
| Maintenance Fund | 19,950,000 | Other Current Liabilities | 15,220,014 |
| Insurance Fund | 10,419,339 | | 47,606,071 |
| Steamship Replacement Fund | 49,087,030 | DEFERRED LIABILITIES: | |
| | 248,210,232 | Dominion Government Unemployment Relief | \$1,447,223 |
| CURRENT ASSETS: | | Miscellaneous | 4,332,833 |
| Material and Supplies | \$37,601,778 | | 5,780,056 |
| Agents' and Conductors' Balances | 14,584,541 | RESERVES AND UNADJUSTED CREDITS: | |
| Miscellaneous Accounts Receivable .. | 19,396,391 | Maintenance Reserves | \$19,950,000 |
| Dominion of Canada Securities | 17,346,404 | Depreciation Reserves | 263,115,501 |
| Cash | 47,161,832 | Investment Reserves | 3,502,983 |
| | 136,090,946 | Insurance Reserve | 10,419,339 |
| UNADJUSTED DEBITS: | | Contingent Reserves | 5,189,633 |
| Insurance Prepaid | \$223,244 | Unadjusted Credits | 6,057,830 |
| Unamortized Discount on Bonds | 5,073,426 | | 308,235,286 |
| Other Unadjusted Debits | 2,460,952 | PREMIUM ON CAPITAL AND DEBENTURE STOCK | 34,458,562 |
| | 7,757,622 | LAND SURPLUS | 61,704,766 |
| | \$1,583,077,899 | PROFIT AND LOSS BALANCE | 251,715,008 |
| | | | \$1,583,077,899 |

ERIC A. LESLIE,
Vice-President and Comptroller.

TO THE SHAREHOLDERS,
CANADIAN PACIFIC RAILWAY COMPANY:
We have examined the Books and Records of the Canadian Pacific Railway Company for the year ending December 31, 1944, and having compared the Balance Sheet and related schedules therewith, we certify that in our opinion they are properly drawn up so as to show the true financial position of the Company at that date, and that the Income and Profit & Loss Accounts correctly set forth the result of the year's operations.

The records of the securities owned by the Company at December 31, 1944, have been verified by an examination of those securities in the custody of its Treasurer and by certificates received from such depositaries as are holding securities for safe custody for the Company.

PRICE, WATERHOUSE & CO.,
Chartered Accountants.

Montreal, March 9, 1945.

by the Ministry of War Transport for operation by your Company, some continuously, and others on a voyage by voyage basis. Such ships have been staffed, in part, by your regular employees which were displaced from their positions owing to loss of the vessels in which they had been serving. A number of seagoing employees have lost their lives in the performance of their perilous duties, and others, including some of your senior shore officials, have suffered untold hardship as prisoners of war.

Capital Appropriations

In anticipation of your confirmation, your Directors authorized capital appropriations for the year 1944 amounting to \$1,872,121 in addition to those approved at the last annual meeting.

Your approval will also be requested for capital appropriations of \$28,448,107 for the present year. The principal items are as follows:

| | |
|---|-------------|
| Additions and betterments to stations, freight sheds, coaling and watering facilities and engine houses | \$5,014,250 |
| Replacement and enlargement of structures in permanent form .. | 586,112 |
| Tie plates, rail anchors and miscellaneous roadway betterments .. | 1,296,953 |
| Replacement of rail in main line and branch line tracks with heavier section | 1,148,123 |
| Installation of automatic signals | 883,743 |
| Additional terminal and side track accommodation | 484,072 |
| Additions and betterments to shop machinery | 1,378,076 |
| New rolling stock | 16,206,520 |
| Additions and betterments to rolling stock | 411,968 |
| Additions and betterments to communication facilities | 587,674 |
| Inland Steamships—B.C. Lake and River Service | 240,000 |

The appropriation for new rolling stock, strictly limited to a programme for which material could be made available to your Company, makes provision for 30 Pacific type steam locomotives and 13 Diesel switching locomotives; 1,275 freight train cars, including 750 box cars, 200 refrigerator cars and 200 gondola cars; 50 passenger train cars and 5 work units.

Post-War Re-establishment

The officers of your Company are actively planning to ensure the successful re-assimilation into service of the large number of employees on leave of absence with the armed forces. The

seniority and pension rights of such employees are fully protected. When new employees are engaged, every possible consideration will be extended to those applicants who have been honourably discharged from the armed services.

Problems of re-establishment and employment which will confront your Company in the period of transition from war to peace will be in charge of a Vice-President assigned to special duties.

Directorate

It is with deep regret that your Directors record the death on November 26, 1944, of Honourable Henry Cockshutt who had been a member of the Board since June, 1925.

Mr. Howard P. Robinson, Saint John, N. B., was appointed a Director to succeed Honourable Henry Cockshutt.

The undermentioned Directors will retire from office at the approaching annual meeting. They are eligible for re-election:

| | |
|--------------------------|-------------------------------|
| MR. AIMÉ GEOFFRION, K.C. | MR. W. M. NEAL, C.B.E. |
| MR. G. BLAIR GORDON | MR. GEORGE W. SPINNEY, C.M.G. |

Officers and Employees

Each successive year of hostilities has intensified the problems of management and the tasks of labour in all branches of your Company's service. Indebtedness to all ranks of employees is acknowledged for the maintenance of efficient and effective transportation, despite the difficulties of wartime conditions.

Your Directors are proud to report that, at the end of the year, 19,479 men and women from all branches of your Company had joined the armed forces or engaged in special war services under direction of the British Admiralty. Solemn tribute is paid to the 527 employees who have given their lives in the common cause; earnest hopes are expressed for the safe and early return of those still engaged in hazardous duties.

For the Directors,
D. C. COLEMAN,
President.

Montreal, March 12, 1945.

[Advertisement]

the Missouri Pacific for many years and includes drawings to show "What Happened," accompanied by a simple explanation, and followed by drawings and explanations of "Why It Happened" and "How It Could Have Been Avoided."

Another sound slide film now being produced will cover block signal rules, including operation of trains by signal indication and by centralized traffic control. Other film strips to be prepared will cover rules concerning train orders, Rule 93, Rule 99, and possibly a detailed explanation of speed restrictions on curves. With each of these films, another will be presented illustrating serious accidents that have resulted from violation of the rules illustrated.

O. D. T. Again Restricts Summer Campers' Travel

Transportation facilities for travel by rail to and from children's summer camps will be curtailed again this season, according to Col. J. Monroe Johnson, director of the Office of Defense Transportation. Special trains or extra sections of regular trains will not be authorized, he said, although there is no objection to handling these movements to camps in extra coaches on regular trains. Last year, as noted in *Railway Age* of April 22, 1944, page 789, such extra coaches could be operated only under O. D. T. permit.

"Camp directors must spread transportation to camps over a longer period of time, and it must be understood that such movements are dependent on the ability of the railroads to accommodate them," Colonel Johnson added. No charter or special bus service to camps will be permitted unless approved by the Office of Community War Services.

Parents enrolling children in full-time summer camps again were requested by the O. D. T. to choose a camp near home and to forego week-end bus and train trips to visit children, except in cases of absolute necessity. Camp officials were asked to make their arrangements with transportation companies well ahead of time in order to avoid conflict with essential traffic movements.

O. P. A. Fights Proposed Boost in New England Truck Rates

The Office of Price Administration has filed with the Interstate Commerce Commission a protest against pending proposals to increase motor truck rates in New England territory. As noted in the *Railway Age* of March 24, page 563, the New England truckers are seeking an increase which would boost minimum charges 10 cents per shipment and raise other rates one cent to 2½ cents per 100 lb.

The O. P. A. press release on its protest asserted that motor carriers over the entire country "may be expected to ask similar increases if these proposed for New England are permitted." It added that higher truck rates would increase the cost of the war, because the federal government today is the country's largest shipper of freight.

Also it is asserted that an O. P. A. audit of the books of 11 New England truckers indicated "unwarranted expenses and salaries being reported to the I. C. C.

and used in justification of the proposed rate increase." Moreover, the New England motor carriers "have received wartime increases of more than 10 per cent above rail rates," and further increases are "unnecessary and contrary to the price stabilization program."

Freight Car Loading

Loadings of revenue freight for the week ended April 7 totaled 764,763 cars, the Association of American Railroads announced on April 12. This was a decrease of 70,463 cars or 8.4 per cent below the preceding week, a decrease of 23,222 cars or 2.9 per cent below the corresponding week last year, and a decrease of 24,256 cars or 3.1 per cent below the comparable 1942 week.

Loading of revenue freight for the week ended March 31 totaled 835,226 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

For the Week Ended Saturday, March 31

| District | 1945 | 1944 | 1943 |
|--------------------------------|---------|---------|---------|
| Eastern | 167,641 | 159,883 | 159,762 |
| Allegheny | 189,468 | 178,709 | 175,308 |
| Pocahontas | 55,065 | 53,734 | 51,081 |
| Southern | 133,025 | 118,851 | 120,802 |
| Northwestern | 89,754 | 86,810 | 78,014 |
| Central Western | 126,394 | 117,729 | 116,761 |
| Southwestern | 73,879 | 70,390 | 70,374 |
| Total Western Districts | 290,027 | 274,929 | 265,149 |
| Total All Roads | 835,226 | 786,106 | 772,102 |
| Commodities | | | |
| Grain and grain products | 46,560 | 41,327 | 43,326 |
| Live stock | 14,516 | 14,473 | 13,859 |
| Coal | 171,507 | 164,337 | 157,426 |
| Coke | 15,639 | 14,797 | 14,415 |
| Forest products | 41,774 | 40,922 | 41,895 |
| Ore | 22,201 | 17,444 | 17,133 |
| Merchandise l.c.l. | 112,246 | 109,013 | 100,966 |
| Miscellaneous | 410,783 | 383,723 | 383,080 |
| March 31 | 835,226 | 786,106 | 772,102 |
| March 24 | 816,058 | 777,578 | 767,340 |
| March 17 | 815,789 | 785,195 | 768,134 |
| March 10 | 766,290 | 780,265 | 769,045 |
| March 3 | 785,264 | 786,893 | 748,926 |

Cumulative Total,

13 Weeks ..10,069,868 10,228,853 9,811,910

In Canada.—Car loadings for the week ended March 31 totaled 62,252 as compared with 67,080 for the previous week and 68,995 for the corresponding period last year, according to the compilation of the Dominion Bureau of Statistics.

| | Total Cars Loaded | Total Cars Rec'd from Connections |
|-------------------------------|-------------------|-----------------------------------|
| Total for Canada: | | |
| Mar. 31, 1945 | 62,252 | 40,195 |
| Apr. 1, 1944 | 68,995 | 43,184 |
| Cumulative Totals for Canada: | | |
| Mar. 31, 1945 | 843,742 | 481,204 |
| Apr. 1, 1944 | 885,163 | 520,711 |

Two-Day Packaging Conference at Rochester, N. Y., Apr. 19-20

As its contribution to the 1945 Perfect Shipping Campaign, the Transportation Club of the Rochester (N. Y.) Chamber of Commerce has scheduled its second wartime packaging, packing and shipping conference and exhibit at the club's headquarters, 55 St. Paul Street, Rochester, on April 19 and 20. Several service agencies of the Army and Navy are reported to have shown live interest in the coming session, and have given active co-operation to the transportation group. The objectives of the conference will be to

impress upon area war plants the vital need for strict adherence to Army and Navy specifications for the packaging and packing of war materials destined for overseas destinations; to enlist full co-operation of carrier employees so that war materials will not be damaged or lost; and to stress the need for extra care in packing and handling civilian goods.

High-spot of the two-day program will be the evening session, April 20, when Robert A. Fasold, special representative, Freight Claim division, Association of American Railroads, will address the group on "Perfect Shipping," and A. L. Whiton, chief, Packaging branch, Production Service division, Office of Chief of Ordnance, Washington, will talk on "Packaging Conditions in the War Zones." The latter talk will be illustrated with pictures of a recent 20,000-mile tour of European and Burma-India theaters of operation.

There will be a display of war materials and supplies produced in war plants in the Rochester area, packaged and packed for export in accordance with Army and Navy specifications. Packaging materials, including adhesives, box liners, rust preventing and degreasing desiccants, grease-proof wrapping papers, etc., will be exhibited, with representatives on hand to explain the uses of their products. G. F. Mills, division freight agent of the Erie, is one of the members of the committee in charge of this exhibit.

The Port Transportation Division of the New York Port of Embarkation is to send a display which will demonstrate correct packaging and packing procedure, including samples showing proper box and crate construction, marking, nailing, strapping, etc., and through the use of models show how to properly brace freight on railroad cars.

There will be a "Loss and Damage" exhibit also, with examples of unsuitable and inadequate containers, illegible markings and the like. Co-chairmen of this committee are G. D. Chrisman, freight agent, New York Central; J. T. Welch, freight agent, Pennsylvania; and L. E. Neary, manager, Keeshin Motor Express Lines.

Labor Seeking More Money for Mediation Board

Increased appropriations which would enable the National Mediation Board to employ 15 additional mediators in an effort to reduce the backlog of unsettled cases have been asked by the Railway Labor Executives Association in a letter sent last week to Chairman Cannon of the House committee on appropriations. N. M. B. now has 18 mediators.

The unions' demand came out of an R. L. E. A. meeting in Washington last week. As reported in the April 7 issue of "Labor," the letter advised Representative Cannon that as of March 1, N. M. B. had a backlog of 399 unsettled cases, while "new cases are pouring in at the rate of 50 a month, against an average of 40 settlements."

"The effect of this development," it went on, "has been widespread dissatisfaction among railroad workers . . . and a growing disposition to resort to the strike ballot. There have been withdrawals from service

and other 'short cuts' to avoid the interminable delays which are becoming characteristic of railway labor adjustment machinery." The "Labor" article further charged that "some railroads are taking advantage of the situation to stall off and weaken unions and also the 'breakdown of the adjustment machinery' is being exploited by some rival labor organizations with attempted 'raids' on established unions."

As noted in the *Railway Age* of January 27, page 244, the latest annual report of N. M. B. expressed the board's concern over the growing backlog of unsettled cases, noting a "tendency on the part of certain organizations to threaten strike action on certain issues without first exhausting all mediatory provisions of the law, with the expectation of securing immediate mediatory services by such action." Its inability to handle cases promptly "is not a healthy situation," the board added.

Technical Advice on Rule of Rail-Motor Affiliation

Examiner Philip N. Crowley of the Bureau of Motor Carriers' Section of Finance thinks that applicable precedents from Interstate Commerce Commission decisions now support a ruling to the effect that a railroad's investment in a motor carrier need not constitute the controlling interest in order to bring into play that provision of the Interstate Commerce Act's section 5 which requires that applications wherein railroads or their affiliates are seeking authority to acquire motor carriers must be supported by a special showing to the effect that the proposed transaction will enable the railroad to use the service by motor vehicle to public advantage in its operations and will not unduly restrain competition.

The examiner has so advised the commission in his proposed report in the No. MC-F-2578 proceeding which involves the application of the Northland Greyhound Lines, affiliate of the Great Northern, for authority to purchase from the Wisconsin Power & Light Co. certain operating rights and property covering approximately 304 miles of bus routes between Green Bay, Wis., and Dubuque, Iowa, and Fond du Lac, Wis., and Sheboygan. The Greyhound Corporation, which controls Northland through ownership of 51.1 per cent of its common stock, is also an applicant, seeking authority to acquire control of the rights proposed to be purchased by Northland.

Examiner Crowley addresses himself in the main to the tie-up between Northland and Great Northern. He recalls that in order to clear the way for a previous acquisition by Northland, when the same issue was raised, the railroad reduced its stock interest in Northland to less than the majority which it previously held, and accepted minority representation on Northland's board of directors. When these readjustments were made, the commission approved the acquisitions proposed (see *Railway Age* of May 13, 1939, page 848).

It is the examiner's contention, however, that the commission has since "redefined" its position with respect to "affiliation" in *Southwestern Greyhound Lines, Inc.—Merger*, 39 M. C. C. 243, decided July 13, 1943 (see *Railway Age* of July 31, 1943, page

219, and December 2, 1944, page 863). The up-to-date rule, as the examiner reads it, calls for strict construction—a holding that section 5's special-showing requirement is not reserved for cases where the motor carrier involved is controlled by the railroad; it comes into play also where the evidence indicates that the motor carrier is apt to be managed "in any material degree" in the interest of the railroad.

Such is the situation in the present case, he adds, where the Great Northern still owns 45 per cent of Northland's common stock, and has four representatives on Northland's nine-man board of directors and one out of three on its executive committee. Thus the recommended findings that Northland is affiliated with Great Northern within the meaning of section 5(2) (b); that "the record contains no evidence showing how the transaction herein considered will be consistent with the public interest and will enable the Great Northern to use service by motor vehicle to public advantage in its operations and will not unduly restrain competition"; and that the application should be denied "without prejudice to such further proceedings as applicants may desire to seek in order to meet the proof requirements of the proviso of section 5(2) (b)."

Collision Follows Failure to Stop at Red Signal

A head-on collision in centralized traffic control territory on the Southern Pacific, near Redlands, Cal., at 9:54 a.m. on February 11, was caused by failure to obey signal indications, according to a report of the investigation by the Interstate Commerce Commission under supervision of Commissioner Patterson. The trains involved were an eastbound freight, Extra 5015, which consisted of two locomotives, 96 cars and caboose, and westbound passenger No. 43, the "Californian," made up of a locomotive and 19 passenger-train cars. There were no fatalities, but 157 passengers and 20 employees and other persons were injured.

Operation in this territory was by signal indication, and continuously lighted color-light type signals were employed. Redlands is about 65 miles east of Los Angeles on the single-track main line from that point to El Paso, Tex. In both directions from the station there is considerable curvature, while the grade is 1.23 per cent descending westbound.

Switches at the ends of a 6,570-ft. siding at Redlands were controlled by a C.T.C. machine at Beaumont, 15.7 miles east. Approach locking was provided, and the circuits were so arranged that, when the west siding switch (about 0.74 mile west of the Redlands station) was lined for movement from the main track into the siding, westbound trains would encounter a signal displaying a yellow aspect (proceed prepared to stop at next home signal) at a point 6,624 ft. east of the point of the accident, and a signal displaying a red aspect (stop) 301 ft. east of that point. Eastbound trains, under the same circumstances, would encounter a signal displaying a yellow aspect 4,095 ft. west of the point of the accident and one displaying red over green (proceed on diverging route) 38 ft. east of the point

of the accident and 9 ft. west of the west siding switch. The authorized maximum speed for passenger trains was 50 m.p.h., for freights, 35 m.p.h.

About 20 min. before the accident occurred, the operator at Beaumont placed the levers of the C.T.C. machine so the route would be lined for Extra 5015 to enter the west siding switch at Redlands, where it was to meet No. 43. After passing the signal east of Redlands, which displayed a yellow aspect, No. 43 stopped at the station, from which it departed on time. Because of track curvature, the view of the next signal (which displayed a red aspect) from the left side of the engine of No. 43 was "materially restricted," but the signal could be seen from the right side throughout a distance of about 1,800 ft. immediately to the east.

The engineer of No. 43 said he was preoccupied with attempting to release the brakes of some of the cars of his train, so that he did not see the red aspect of the signal until his train was within some 300 ft. of it, at which time it was moving 30 m.p.h., according to the speed recorder tape. At the same time he saw the opposing train. While he immediately moved the brake valve to emergency, No. 43, was moving about 20 m.p.h. when the collision occurred.

The enginemen on the first engine of the freight had observed signal indications and had seen that the west siding switch was lined for their train to enter the siding. As soon as No. 43 was seen passing the clearance point for that switch, the brake valve was moved to emergency, but the brakes had not become effective when the collision occurred. Extra 5015 was then moving about 10 m.p.h. The engine and the second and ninth cars of No. 43 and the first engine, the fourth to ninth and 65th to 71st cars, inclusive, of the freight were derailed. Fifteen cars and the first engine of the freight and the engine and 17 cars of No. 43 were "more or less damaged," according to the report.

Tells I. C. C. to Reject Request for Carriage of Trailers

Examiner Leonard Way has recommended in a proposed report that the Interstate Commerce Commission dismiss the complaint wherein Ringsby Truck Lines, Inc., of Denver, Colo., is seeking a commission order requiring the Atchison, Topeka & Santa Fe, the Chicago, Burlington & Quincy, and the Union Pacific to establish "reasonable facilities" and "just and reasonable rates" for the transportation of loaded and empty semi-trailers on flat cars between Chicago and Denver, Chicago and Los Angeles, Calif., and Denver and Los Angeles. The proceeding is docketed as No. 29180.

The complaint was filed last September, as noted in the *Railway Age* of September 16, 1944, page 456, the railroad motions to dismiss being noted in the issue of September 30, 1944, page 524. The examiner found that there is no holding out by the three roads to transport semi-trailers used in transporting motor carrier freight, meanwhile noting that the Interstate Commerce Act requirement that a railroad furnish transportation upon reasonable request

NORFOLK AND WESTERN RAILWAY COMPANY

Summary of Forty-Ninth Annual Report for 1944

In 1944, the Company again handled the largest volume of traffic in its history. This was the result of continued demands of the war effort.

Railway Operating Revenues increased \$9,434,000, or 6.28 per cent., over 1943. Railway Operating Expenses increased \$5,317,000, or 6.30 per cent. Balance of Income, after deducting Sinking and Reserve Funds and Appropriations, decreased \$12,000. Balance of Income corresponds with "Net Income" for previous years. After deducting dividends on Adjustment Preferred Stock, the balance remaining, \$21,304,000, was equivalent to \$15.15 per share of Common Stock held by the public.

Condensed Income Statement

| | 1944 | Comparison with 1943 | Per Cent. |
|--|------------------|----------------------|------------------------|
| Railway Operating Revenues | \$159,599,035.03 | Inc. \$9,434,113.78 | 6.28 |
| Railway Operating Expenses | 89,712,833.89 | Inc. 5,317,192.75 | 6.30 |
| Net Revenue from Railway Operations | \$69,886,201.14 | Inc. \$4,116,921.03 | 6.26 |
| Railway Tax Accruals: | | | |
| Federal (See Note 1) | \$49,127,480.40 | | |
| Less: Post-War Credit | 3,120,000.00 | | |
| | \$46,007,480.40 | | |
| State, County and Local | 5,667,551.25 | 51,675,031.65 | Inc. 2,476,813.19 5.03 |
| Railway Operating Income | \$18,211,169.49 | Inc. \$1,640,107.84 | 9.90 |
| Rent Income—Equipment and Joint Facilities—Net | 7,732,364.61 | Dec. 605,448.69 | 7.26 |
| Net Railway Operating Income | \$25,943,534.10 | Inc. \$1,034,659.15 | 4.15 |
| Non-Operating Income (See Note 2) | 7,036,328.52 | Inc. 5,624,405.82 | 398.35 |
| Gross Income | \$32,979,862.62 | Inc. \$6,659,064.97 | 25.30 |
| Deductions from Gross Income: | | | |
| Interest on Funded Debt | \$2,113,633.28 | Dec. \$138.83 | |
| Other Deductions | 118,707.50 | Dec. 1,280,749.53 | 91.52 |
| | \$2,232,340.78 | Dec. \$1,280,888.36 | 36.46 |
| Net Income | \$30,747,521.84 | Inc. \$7,939,953.33 | 34.81 |
| Sinking and Reserve Funds—Appropriations | 632,037.62 | Inc. 21,718.66 | 3.56 |
| Miscellaneous Appropriations (See Note 3) | 7,930,482.30 | Inc. 7,930,482.30 | |
| Balance of Income (Prior to 1944, "Net Income") | \$22,185,001.92 | Dec. \$12,247.63 | |
| Dividends on Adjustment Preferred Stock—\$4.00 per share | 881,324.00 | Dec. 11,029.00 | 1.24 |
| Balance Transferred to Earned Surplus | \$21,303,677.92 | Dec. \$1,218.63 | |

Note 1—Excess profits tax was accrued at net 85.5 per cent. rate in 1944 and at full 90 per cent. rate in 1943.

Note 2—Includes \$4,810,000 excess profits tax post-war credits for 1942 and 1943.

Note 3—Excess profits tax post-war credits for 1942, 1943 and 1944.

Condensed Earned Surplus Statement

| | |
|--|------------------|
| Credit Balance, January 1, 1944 | \$187,246,488.70 |
| Credits: | |
| Balance of Income for Year | \$21,303,677.92 |
| Miscellaneous Credits | 480,405.65 |
| Total Credits | 21,784,083.57 |
| | \$209,030,572.27 |
| Charges: | |
| Appropriation of Surplus for Dividends on Common Stock—\$10.00 per share | \$14,064,830.00 |
| Miscellaneous Charges | 1,738,425.28 |
| Total Charges | 15,803,255.28 |
| Credit Balance, December 31, 1944 | \$193,227,316.99 |

Dividends

Dividends of \$1.00 per share quarterly, a total of \$4.00 per share, or \$881,000 were declared upon the outstanding Adjustment Preferred Stock. Dividends of \$2.50 per share quarterly, a total of \$10.00 per share, or \$14,065,000, were declared upon the outstanding Common Stock.

Taxes

Railway Tax Accruals, after Excess Profits Tax credit of \$3,120,000, were \$51,675,000, an increase of \$2,477,000, or 5.03 per cent. Taxes amounted to \$2,314 for each employee, to \$37 for

each share of Common Stock, to 32 cents per dollar of Operating Revenues, to 233 per cent. of Balance of Income after taxes and to 9 per cent. of Railway Property Investment. Federal Taxes \$46,007,000, representing 89.03 per cent. of all tax accruals for the year, increased \$2,314,000, or 5.30 per cent. Included in this amount were accruals for Normal tax and Surtax, \$13,500,000, Excess Profits tax, at the net 85.5 per cent. rate, \$28,080,000, Railroad Retirement and Unemployment Insurance taxes, \$3,528,000, and Capital Stock tax, \$876,000.

Post-War Credits—Federal Excess Profits Tax

The Revenue Act of 1942 fixed the corporation excess profits tax at 90 per cent., which applied to the years 1942 and 1943, with post-war refund of 10 per cent. of such tax. In 1944 this tax was increased to 95 per cent., with retention of the post-war refund of 10 per cent. of such tax.

Payment of tax at the full rate applicable to each year was required, and the Company's Income Statements for 1942 and 1943 reflected the full tax liability. But in 1944 the Company was required by the Interstate Commerce Commission to accrue excess profits tax at the net rate of 85.5 per cent., thereby establishing a post-war credit of \$3,120,000 for the year, and to increase Income Account by \$4,810,000, the sum of post-war credits for the years 1942 and 1943.

The Company has received United States Government Bonds in amount of the 1942 post-war credit of \$2,170,000, and eventually will receive bonds representing the credits for subsequent years. These bonds will bear no interest and cannot be negotiated, assigned or pledged until cessation of hostilities, and the credits are not immediately available to the Company for dividends or for other purposes.

Reserve Fund for Taxes and Contingencies

The Reserve Fund for Taxes and Contingencies, principally for payment of future tax obligations, aggregated \$51,490,000 at the end of 1944. This fund is invested in United States Government securities. Total taxes accrued for the year were \$51,675,000, of which Federal Income and Excess Profits taxes accounted for \$41,580,000 payable in 1945.

Heavy traffic because of the war has continued, with railroad facilities experiencing greater wear and tear. Through lack of critical materials and manpower, maintenance and replacements could not be made to usual standards. Substantial sums must be provided to meet these deferred expenses after the war. The Company's reserve fund will be available for such purposes and for other contingencies, as well as for accrued taxes.

Appropriation of funds to be held as a reserve for deferred maintenance has been authorized by the Interstate Commerce Commission, but, unfortunately, the Commissioner of Internal Revenue has declared that such reserve funds are unexpended profits, and as such are subject to taxation. As a result, railroads have been unable to build up these vitally necessary reservoirs to finance future requirements. The obvious need for assistance in this matter has been recognized, and a bill has been introduced in the United States Senate to provide the necessary relief. Its adoption would be of material assistance to the railroads in making provision for future rehabilitation of their facilities, and also would contribute to solution of unemployment in the post-war period.

Financial

The Capital Stock of the Company held by the public was \$162,643,900, and represented 76.01 per cent. of outstanding stock and bond capitalization. On December 31, 1944, the Company's stockholders numbered 14,098.

The total Funded Debt held by the public was \$51,335,332, and represented 23.99 per cent. of outstanding capitalization. With inclusion in income of \$4,810,000 excess profits tax post-war credits for 1942 and 1943, fixed charges were earned 15.48 times and, excluding such credits, 13.21 times in 1944. Over the last ten years fixed charges were earned an average of 13.39 times.

At the end of the year appropriations to the voluntary sinking fund for retirement of Funded Debt and income from investments

[Advertisement]

totalled \$2,409,000, and investments in securities had a market value of \$2,503,000.

Employees

Employees on the Company's rolls during the year averaged 22,327. Railway Property Investment of \$565,025,000 averaged \$25,307 per employee. The Company's total payroll for 1944 was \$56,066,000, an average of \$2,511 per employee. In addition to wages and salaries, the Company paid \$4,111,000 for Railroad

Retirement and Unemployment Insurance taxes and employee Relief and Pension Funds, which averaged \$184 per employee.

The Board expresses to the officers and employees its appreciation of the fidelity, diligence and efficiency with which they have served the Company and the Nation during the year. Recognition is also given to the 4,359 employees who have entered the Armed Forces. Special tribute is paid to those who have made the supreme sacrifice for their Country.

W. J. JENKS, President.

Three War Years and 1939

The following is a summary of the more important financial, traffic and operating results for 1944 compared with prior war years and 1939.

| FINANCIAL | | | | | | 1944 vs. 1939 | TRAFFIC AND OPERATION | | | | | | 1944 vs. 1939 |
|---|-----------------------|-------|-------|-------|-------------|---|-----------------------|--------|--------|--------|----------|-------------|---------------------|
| | 1944 | 1943 | 1942 | 1939 | | | | 1944 | 1943 | 1942 | 1939 | | |
| | (Millions of Dollars) | | | | (Per cent.) | | | | | | | (Per cent.) | |
| Operating Revenues | 160 | 150 | 140 | 93 | Inc. 72 | Coal Tonnage (Million Tons)... | 53 | 54 | 54 | 39 | Inc. 36 | | |
| Operating Expenses | 90 | 84 | 76 | 51 | Inc. 76 | Total Revenue Freight (Million Tons) | 72 | 71 | 71 | 48 | Inc. 50 | | |
| Net Operating Revenues | 70 | 66 | 64 | 42 | Inc. 67 | Revenue Tons Carried One Mile (Millions) | 19,907 | 19,721 | 18,886 | 13,401 | Inc. 49 | | |
| Taxes | 52 | 49 | 46 | 13 | Inc. 300 | Revenue per Ton per Mile (Fraction of one cent) | 0.69 | 0.66 | 0.67 | 0.66 | Inc. 5 | | |
| Interest on Funded Debt | 2 | 2 | 2 | 2 | | Revenue Passengers (Thousands) .. | 5,169 | 4,998 | 3,202 | 1,048 | Inc. 393 | | |
| Balance of Income (Prior to 1944, "Net Income") | 22 | 22 | 22 | 30 | Dec. 27 | Average Distance Carried (Miles) .. | 169 | 160 | 148 | 79 | Inc. 114 | | |
| Dividends Per Share—Adjustment Preferred Stock (Dollars) .. | 4 | 4 | 4 | 4 | | Revenue per Passenger per Mile (Cents) | 1.97 | 1.98 | 2.09 | 2.29 | Dec. 14 | | |
| Common Stock (Dollars) | 10 | 10 | 10 | 15 | Dec. 33 | Number of Locomotives owned | 576 | 581 | 587 | 578 | | | |
| Fixed Charges—Times Earned | 15.48 | 11.74 | 11.60 | 15.28 | | Number of Freight Cars owned (Thousands) | 62 | 61 | 61 | 54 | Inc. 15 | | |
| Railway Property Investment (Millions of Dollars) | 565 | 556 | 554 | 513 | Inc. 10 | Number of Passenger Cars owned | 397 | 397 | 397 | 322 | Inc. 23 | | |
| Percentage of Taxes to Railway Property Investment | 9.20 | 8.81 | 8.30 | 2.53 | | | | | | | | | |
| Earned on Railway Property Investment (Per cent.) | 4.59 | 4.48 | 4.30 | 6.17 | | | | | | | | | |

[Advertisement]

(News Department continued from page 681)

therefor "applies only to such traffic that the carrier holds itself out to transport."

He also pointed out that the act does not require railroads to establish joint-rate arrangements with motor carriers; and thus voluntary arrangements of that kind provide no precedents for the complainant. Finally he found that the set-up proposed by Ringsby would not be accord with the commission's findings in Ex Parte 129, *Substituted Freight Service*, 232 I. C. C. 683,690.

Emergency Boards

Use of the strike ballot to obtain the appointment of emergency boards in connection with disputes for which other Railway Labor Act procedures provide "adequate and ample" methods of adjustment was deplored by the emergency board which reported to President Roosevelt last week on the Denver & Rio Grande Western case involving the application of various awards of the National Railroad Adjustment Board. The employees concerned were represented by the five transportation brotherhoods, and the board's report reveals that when it convened in Denver, Colo., on March 14 "a strike had actually gone into effect at different main-line terminals for periods varying from 55 minutes to eight hours."

Eighteen awards of the Adjustment Board were originally involved, but agreements with respect to seven were reached during the period of the hearings. The board made various specific findings on the other eleven. Its general comment on the strike-ballot technique of getting cases settled came in the conclusion of its report.

"Arbitration and mediation," it said, "are available under the statute, and the awards of the National Railroad Adjustment

Board, though final and binding, are always open to petition for clarification whenever the parties, or any of them, consider its terms ambiguous.

Division 1 Is Far Behind—"We earnestly recommend that these methods of adjustment, exclusively, be invoked, and that additional encouragement to do so be given by the national government by providing means for expediting the processes of the Adjustment Board. The First Division, in particular, is overloaded with cases that, in spite of the utmost diligence on the part of its members and staff, long delays in the actual rendering of awards are inevitable. The need for the services of this board is constantly increasing, and has now become so urgent that the national interests require, in our judgment, the adoption of measures that will adequately equip the board for the more prompt disposition of the claims referred to it."

Members of the emergency board were: Chairman Lief Erickson, former justice of the Supreme Court of Montana; Ridgely P. Melvin, justice of the Maryland Court of Appeals; and Russell Wolfe, attorney of Philadelphia, Pa.

The President also received last week a report from the National Railway Labor Panel emergency board which investigated the wage dispute between the Sacramento Northern and its yardmasters and conductors and brakemen represented by the Brotherhood of Railroad Trainmen. The board's report recommended denial of yardmasters' demand, but found that the wage rates of the conductors and brakemen should be brought up to the standard scale. Members of this board were: James H. Wolfe, justice of the Supreme Court of Iowa; Gordon S. Watkins, professor of economics,

University of California; and A. G. Crane, former president of Wyoming State University.

They were immediately reappointed by Panel Chairman H. H. Schwartz to serve on another board created to investigate a dispute between the Southern Pacific and its employees represented by the Brotherhood of Locomotive Engineers. The controversy involves working rules.

On April 7 President Roosevelt issued a proclamation creating an emergency board to investigate a dispute which had brought a Brotherhood of Locomotive Firemen & Enginemen strike threat to the Missouri Pacific. The controversy involves the application of the Interstate Commerce Commission's order on automatic stokers and four other cases over which the National Railroad Adjustment Board would normally have original jurisdiction, and which have been submitted to that board by the carrier. The strike had been set for April 8 at noon.

Members of this board are Judge Erickson, who had served on the D. & R. G. W. board, as noted above; H. Nathan Swain, former justice of the Supreme Court of Indiana; and Robert W. Woolley, Washington, D. C., attorney and former member of the I. C. C. Hearings were scheduled to open in St. Louis, Mo., on April 12.

1946 Integral Bus Program

Production during 1946 of 8,833 integral buses, the same as the current year's authorization, is included in the civilian local transit and intercity bus equipment program approved by the War Production Board, according to an April 11 announcement from the Office of Defense Transportation. The 1946 program also provides for

the production of 348 trolley coaches; and for the first half of the year, 300 street cars and 5,000 bus bodies.

The W. P. B. Transportation Equipment Division has also approved for O. D. T. certain 1946 "program goals." As the O. D. T. announcement put it, this action "in effect recognized the need for 11,000 integral buses, 400 trolley coaches, 600 street cars and 10,000 bus bodies to meet essential requirements although authorization for building these larger quantities was not granted at this time." It was explained, however, that approval of the "program goals" will make it unnecessary for O. D. T. to further establish essentiality of the equipment involved "in the event availability of material, components, manpower, and production facilities make it possible to increase the amounts of equipment approved for construction."

Retirement Act Amendment

Senator Myers, Democrat of Pennsylvania, has introduced S.829 to liberalize the death benefit provisions of the Railroad Retirement Act.

Representation of Employees

District 50 of the United Mine Workers of America, John Lewis' catch-all union, has supplanted the American Federation of Labor's International Brotherhood of Firemen, Oilers, Helpers, Roundhouse & Railway Shop Laborers as the Railway Labor Act representative of the Cincinnati Union Terminal's power house employees and railway shop laborers. Results of a recent election, certified by the National Mediation Board, show that Mine Workers' affiliate won over the A. F. of L. union by a vote of 117 to 29.

In other recent elections, Texas & Pacific dispatchers chose the American Train Dispatchers Association, and sergeants and patrolmen in the police department of the Nashville Terminals chose the National Council of Railway Patrolmen's Unions, A. F. of L. Neither group was previously represented by any union.

O. D. T. Appointment

The Office of Defense Transportation has announced the appointment of James E. Carroll as assistant director of its Railway Transport Department, in charge of car utilization, effective April 2. He takes the place made vacant by the death of J. F. Sullivan on February 17.

Mr. Carroll was assistant superintendent of the Chicago, Burlington & Quincy before first going to O. D. T. as an assistant director in the Railway Transport Department in September, 1943. He returned to his position with the Burlington in September, 1944, where he remained until recalled to O. D. T.

Put Monthly Betterments Totals in Balance Sheet Summary

As indicated in the accompanying table, the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission has introduced into its monthly statement of selected income and balance sheet items of Class I roads (No. M-125), beginning with the January, 1945, compila-

Selected Income and Balance-Sheet Items of Class I Steam Railways

Compiled from 132 reports (Form IBS) representing 136 steam railroads
(Switching and Terminal Companies Not Included)

| | All Class I Railways | |
|---|--------------------------|---------------|
| | For the month of January | |
| | 1945 | 1944 |
| Income Items | | |
| 1. Net railway operating income | \$73,016,057 | \$84,997,968 |
| 2. Other income | 14,593,823 | 14,643,133 |
| 3. Total income | 87,609,880 | 99,641,101 |
| 4. Miscellaneous deductions from income | 1,942,642 | 2,513,700 |
| 5. Income available for fixed charges | 85,667,238 | 97,127,401 |
| 6. Fixed charges: | | |
| 6-01. Rent for leased roads and equipment | 11,445,973 | 12,316,767 |
| 6-02. Interest deductions ¹ | 32,392,396 | 34,638,405 |
| 6-03. Other deductions | 104,440 | 121,113 |
| 6-04. Total fixed charges | 43,942,809 | 47,076,285 |
| 7. Income after fixed charges | 41,724,429 | 50,051,116 |
| 8. Contingent charges | 2,676,241 | 2,360,679 |
| 9. Net income | 39,048,188 | 47,690,437 |
| 10. Depreciation (Way and structures and Equipment) | 27,393,517 | 26,605,411 |
| 11. Amortization of defense projects | 18,894,789 | 13,078,045 |
| 12. Federal income taxes | 90,287,019 | 93,761,082 |
| 13. Dividend appropriations: | | |
| 13-01. On common stock | 2,147,500 | 2,360,000 |
| 13-02. On preferred stock | 2,595,862 | 2,563,688 |
| Ratio of income to fixed charges (Item 5 ÷ 6-04) | 1.95 | 2.06 |
| Balance at end of January | | |
| Selected Asset and Liability Items | | |
| 17. Expenditures (gross) for additions and betterments—Road | \$14,362,142 | |
| 18. Expenditures (gross) for additions and betterments—Equipment | 19,458,229 | |
| 19. Investments in stocks, bonds, etc., other than those of affiliated companies (Total, Account 707) | 580,335,395 | \$584,878,558 |
| 20. Other unadjusted debits | 483,989,441 | 435,615,399 |
| 21. Cash | 993,829,661 | 1,175,790,732 |
| 22. Temporary cash investments | 1,879,046,744 | 1,777,746,072 |
| 23. Special deposits | 259,349,253 | 195,066,556 |
| 24. Loans and bills receivable | 384,863 | 210,511 |
| 25. Traffic and car-service balances—Dr. | 45,809,031 | 45,602,827 |
| 26. Net balance receivable from agents and conductors | 135,602,911 | 159,611,794 |
| 27. Miscellaneous accounts receivable | 663,142,295 | 653,786,986 |
| 28. Materials and supplies | 607,179,950 | 543,503,023 |
| 29. Interest and dividends receivable | 27,782,437 | 19,792,946 |
| 30. Rents receivable | 1,731,857 | 1,663,084 |
| 31. Other current assets | 55,878,691 | 56,953,365 |
| 32. Total current assets (items 21 to 31) | 4,669,737,693 | 4,629,727,896 |
| 40. Funded debt maturing within 6 months ² | 105,484,396 | 74,510,363 |
| 41. Loans and bills payable ³ | 11,185,000 | 15,710,834 |
| 42. Traffic and car-service balances—Cr. | 195,141,454 | 195,467,397 |
| 43. Audited accounts and wages payable | 448,292,418 | 527,899,633 |
| 44. Miscellaneous accounts payable | 130,914,191 | 109,882,308 |
| 45. Interest matured unpaid | 51,512,151 | 46,442,403 |
| 46. Dividends matured unpaid | 7,380,003 | 6,868,020 |
| 47. Unmatured interest accrued | 66,285,020 | 62,619,602 |
| 48. Unmatured dividends declared | 14,046,947 | 13,367,510 |
| 49. Unmatured rents accrued | 20,238,773 | 18,532,769 |
| 50. Accrued tax liability | 1,837,441,598 | 1,856,075,558 |
| 51. Other current liabilities | 179,727,486 | 189,647,237 |
| 52. Total current liabilities (items 41 to 51) | 2,962,165,041 | 3,042,513,271 |
| 53. Analysis of accrued tax liability: | | |
| 53-01. U. S. Government taxes | 1,707,261,001 | 1,724,595,747 |
| 53-02. Other than U. S. Government taxes | 130,180,597 | 131,479,811 |
| 54. Other unadjusted credits | 657,859,393 | 471,662,508 |

¹ Represents accruals, including the amount in default.

² Includes payments of principal of long-term debt (other than long-term debt in default) which will become due within six months after close of month of report.

³ Includes obligations which mature not more than one year after date of issue.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission.
Subject to revision.

tion, items giving the gross expenditures for road and equipment additions and betterments as reported at the end of the month. Another item not previously included in the tabulation is that disclosing other unadjusted debits, which follows the total of investments in securities, other than those of affiliated companies, which has been reported heretofore.

Wonders How Freight Rates Will Affect Sale of Plants

Because preliminary study has indicated that the "question of railroad rates 'looms large' among the problems involved in the disposition of government-owned steel plants, the war contracts subcommittee of the Senate committee on military affairs and the industrial reorganization subcommittee of the special Senate committee on post-war economic policy and planning will

look into the matter. This was revealed in a notice which has been issued by Senator O'Mahoney, Democrat of Wyoming, chairman of the subcommittees.

"You are aware," the notice tells interested parties, "that the transportation costs incurred in assembling raw materials, parts and products needed to turn out the finished articles, and in distributing such articles, will constitute a major factor in determining the possible utilization of these plants and facilities. Therefore, the problem of railroad rates will occupy a prominent position in the hearings and reports which are planned by the committees.

"The present program calls for the preparation of a preliminary report on the basic relevant facts and the nature of the issues which are involved in the disposition of the government owned steel plants and facilities. Subsequently, we hope to hold

ways

(Continued from page 670)

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Passenger revenue per passenger carrying car-mile increased 145.1 per cent (from 24.6 cents to 60.3 cents) in 1944 over 1940 in comparison with an increase of 21.3 per cent (from 24 cents to 29.1 cents) in freight revenue per loaded freight car-mile. The freight revenue per freight train car-mile (including the loaded and empty cars) increased 29.1 per cent, from 14.8 cents in 1940 to 19.1 cents in 1944.

"The Midwest's Contribution to the War Effort" will be discussed by Col. John Slezak, chief, Chicago ordnance district, when the Western Railway Club meets at 7 p. m., April 16, at Hotel Sherman, Chicago.

INDUSTRIAL FILM.—The service which the Chesapeake & Ohio renders to the mines located on its lines is depicted in a short feature film, entitled "Power Unlimited," which RKO has scheduled for showing in motion picture theaters throughout the nation. The latest release of the "This Is America" series, produced by Frederick Ullman, Jr., this tells the story of coal and its vital role in the national economy. It is the story of the men who work in the mines, the machines used for digging, coal's by-products, the loading of coal at the mines, classification and assembling of loaded cars at Russell, Ky., (yard of the C. & O., and the largest in the world) and the movement of coal to mills and factories.

Joseph F. Hoerner, formerly New York district sales manager for the Baldwin Locomotive Works, has joined the railroad sales department of the **Standard Oil Company of New Jersey**.

Commander R. E. W. Harrison has rejoined the **Chambersburg Engineering Company** as vice-president in charge of sales, following his release to inactive duty by the Secretary of the Navy after four years of service as a staff officer in various bureaus and offices of the Navy Department.

D. P. Morgan has been appointed assistant sales manager, Philadelphia, Pa., district of the **Pittsburgh Steel Foundry Corporation**, Glassport, Pa. Mr. Morgan formerly was sales engineer for the Hanna Stoker Company, Cincinnati, Ohio, covering the railroad fields in the eastern and southern territories.

S. B. Heppenstall, Jr., has been elected vice-president of the **H. K. Porter Company**, Pittsburgh, Pa., with headquarters



S. B. Heppenstall, Jr.

in the general offices in Pittsburgh. Mr. Heppenstall formerly was vice-president in charge of sales of the Heppenstall Company.

The Bendix Radio division of the **Bendix Aviation Corporation** has expanded its west coast quarters at North Hollywood, Calif., to provide complete shop facilities for the assembly and production of special equipment, mock-ups and experimental radio installations for aircraft, railroad, marine and other applications.

Carl F. Oechsle has been appointed vice-president in charge of sales of the **Ransome Machinery Company** of Dunellen, N. J., a subsidiary of the Worthington Pump and Machinery Corp. The sale of Ransome's line of contractors' mixers and pavers now will be handled through Worthington's construction equipment department, of which Mr. Oechsle is manager.

George A. Hull, vice-president of the Union Asbestos & Rubber Co., and general manager of the firm's Equipment Specialties division, with headquarters at Chicago.

has been transferred to Los Angeles, Cal., where he will supervise special work in engineering and sales of specialties for refrigerator cars and other railroad equipment. Mr. Hull will retain his titles and previous duties.

R. M. Darrin has been appointed district manager of the **General Electric Company's** transportation division, New York district. Mr. Darrin, who attended Phillips Exeter Academy and Amherst College, served two years as a first lieutenant with the American Expeditionary Force before joining General Electric in June, 1919. He continued with the transformer division in Pittsfield until September, 1928, when he was appointed in charge of the Central Station division at Buffalo, N. Y. In July, 1940, he was appointed manager of the Syracuse, N. Y., office, which position he held until February of this year, when he was appointed assistant district manager of the Central Station division, New York district.

Kenneth I. Thompson has been appointed eastern sales manager of the **Oxweld Railroad Service Company**, with headquarters at New York. Previously Mr. Thompson was western sales manager



Kenneth I. Thompson

ger of the railroad department of the **Ingersoll-Rand Company**. Born at Bridgeport, Conn., on March 28, 1904, he graduated from the Staunton Military Academy, Staunton, Va., and in 1921 he entered the railway supply field as a salesman of the Pennsylvania Pump & Compressor Co. A short time later he went with the Fuller Lehigh Company and in 1937 he returned to Ingersoll-Rand, remaining with that firm until his new appointment with Oxweld.

The headquarters organization of the **Western Electric Company's** traffic department, located at the Hawthorne Works in Chicago since 1918, has been transferred to the company's general headquarters at 195 Broadway, New York. **W. McGirr**, traffic manager, **R. C. Colton**, assistant traffic manager, and other members of their group will move to New York. **G. M. Schifferdecker**, traffic agent at the company's Kearny, N. J., plant, has been promoted to assistant traffic manager at New York and **F. A. Demarest**, division traffic agent at the New York headquarters, has

been appointed to succeed Mr. Schifferdecker at Kearny.

Ellis L. Spray has been elected vice-president in charge of elevator and air conditioning activities of the **Westinghouse Electric & Manufacturing Co.** at Jersey City, N. J. The Westinghouse Electric Elevator Company, which was a wholly-owned subsidiary of the Westinghouse Electric & Manufacturing Co., has been dissolved and will continue as the Elevator and Air Conditioning divisions of Westinghouse. Mr. Spray had been vice-president and general manager of the Elevator Company.

OBITUARY

Walter Ewing Miller, who retired in 1929 as vice-president, treasurer and a director of Fairbanks, Morse & Co., died in a Chicago hospital on April 3. At the time of his retirement Mr. Miller was also a director of Canadian Fairbanks Morse Company, Ltd.

Equipment and Supplies

LOCOMOTIVES

THE NATIONAL RAILWAYS OF MEXICO has placed orders for 16 4-8-4 type steam locomotives, allocating eight to the Baldwin Locomotive Works and 8 to the American Locomotive Company. In the *Railway Age* of April 7, this railroad was reported incorrectly as having ordered 16 of these locomotives from each builder.

SIGNALING

THE AMERICAN LOCOMOTIVE COMPANY has ordered from the General Railway Signal Company 28 sets of intermittent schedule No. 2 engine equipments for installation on locomotives for the New York Central, 26 sets for steam locomotives and 2 sets for Diesel-electric locomotives. In addition, the New York Central Lines East has ordered two sets for installation on Diesel-electric freight locomotives.

THE NEW YORK, NEW HAVEN & HARTFORD has placed an order with the Union Switch & Signal Co. for one 68-ft. 8-in. and six 62-ft. 5-in. double-rail Model-31 electro-pneumatic car retarders, to replace retarders of an earlier type originally installed many years ago at the New Haven's principal classification yards at Cedar Hill. The installation of these new units will complete the replacement of the older type retarders in the eastbound yard.

THE CHESAPEAKE & OHIO has placed orders with the Union Switch & Signal Co. for the materials to install centralized traffic control between Big Sandy Jct., Ky., and Beaver Jct., 84 miles, and absolute permissive block signaling from Beaver Jct. to Elkhorn City, an additional 44 miles. The Style C control machine for the C. T. C. will be located at Ashland, Ky.,

6 miles from Big Sandy Jct. The materials include Style M-22A electric switch layouts T-21 hand-throw switch layouts for non-controlled main line switches, SL-21 electric switch locks, U-5 switch circuit controllers, color-light high and dwarf signals, along with the required code apparatus and coded carrier control on the two code wires for handling the functions on the farther half of the extensive code section, relays, copper-oxide rectifiers, and housings. The installation will be handled by the railway company's construction forces.

Financial

ALTON.—Promissory Notes.—This road has applied to the Interstate Commerce Commission for authority to issue \$1,340,000 of promissory notes in evidence of the unpaid portion of the purchase price of 500 box cars which it is acquiring from the Pullman-Standard Car Manufacturing Company at a cost of \$3,350 each.

BALTIMORE & OHIO.—Annual Report.—The 1944 annual statement of this road shows a net income, after interest and other charges of \$20,914,438, as compared with a net income of \$30,509,480 in 1943. Selected items from the income statement follow:

| | | Increase or Decrease Compared With 1943 |
|--|---------------|---|
| Average Mileage Operated | 6,143.75 | -5.03 |
| RAILWAY OPERATING REVENUES | \$387,193,036 | +\$29,050,884 |
| Maintenance of way and structures | 58,408,763 | +12,202,342 |
| Maintenance of equipment | 78,410,881 | +7,654,051 |
| Transportation | 130,965,610 | +15,503,337 |
| TOTAL OPERATING EXPENSES | 287,068,754 | +36,484,401 |
| Operating ratio | 74.14 | +4.17 |
| NET REVENUE FROM OPERATIONS | 100,124,282 | -7,433,517 |
| Railway tax accruals | 48,652,847 | +2,194,888 |
| RAILWAY OPERATING INCOME | 51,471,435 | -9,628,406 |
| Equipment rents— | | |
| Net Dr. | 7,415,428 | +371,058 |
| Joint facility rents— | | |
| Net Dr. | 2,407,629 | +519,626 |
| NET RAILWAY OPERATING INCOME | 41,648,378 | -10,519,090 |
| Total other income | 7,741,295 | -896,674 |
| TOTAL INCOME | 49,389,673 | -11,415,764 |
| Rent for leased roads | 1,427,609 | +77,842 |
| Total interest and other fixed charges | 17,742,199 | -904,904 |
| Total contingent interest charges | 9,612,859 | ..... |
| NET INCOME | 20,914,438 | -9,595,042 |

BALTIMORE & OHIO.—Detroit-Toledo Trackage Rights.—The Baltimore & Ohio has asked for Interstate Commerce Commission approval of an agreement under which it would operate passenger, mail and express service between Toledo, Ohio, and Detroit, Mich., on a line of the New York Central, under trackage rights, in lieu of the existing joint service arrangement with the Pere Marquette whereby that road's facilities have been used between the same points. The joint arrangement with the Pere Marquette, which has been in effect many years, expires June 7, and it is pro-

posed to have the new agreement become effective at that time, to run for 10 years and then to continue indefinitely subject to termination by either party upon one year's notice.

The advantages of the new arrangement, according to the application, would be a shorter route (57 miles compared to 64.3), all of which is double track, and more commodious terminal facilities at Detroit. The B. & O.'s business at Detroit has so increased that about 400,000 passengers were handled in its through service to and from that point in 1944, it stated. It has become necessary to operate trains which are too long for the platform tracks at the Detroit Fort Street Union Station, but the Michigan Central Station, to which it would have access under the new agreement, will accommodate these trains without making additional engine movements.

The application stated further that it was believed that the expense of the new arrangement would not be greater than if the existing arrangement with the Pere Marquette should be extended. The B. & O. already uses the same station in Toledo as the N. Y. C. For the use of the line from Toledo to Detroit, one track of which is owned by the N. Y. C. while the other, owned by the Michigan Central, is operated by it under lease, the B. & O. would pay \$1.15 per train-mile. Present schedules call for the daily operation of three passenger trains in each direction and one mail and express train southbound only. For the use of the Detroit station facilities the B. & O. would pay about \$5.32 per car moved in or out of the terminal, this being determined by pro rata distribution of operating and other costs on a car use basis, and in addition would pay for other service performed by the N. Y. C. at rates agreed upon. The contract also provides for the disposition of claims, handling of derailments or accidents, and other contingencies. No employees would be adversely affected by the arrangement, the application said, so no provisions for their protection would be necessary.

CHICAGO & EASTERN ILLINOIS.—Re-financing.—This road has asked the Interstate Commerce Commission for authority to issue and sell \$9,400,000 of series B first mortgage bonds, due in 1985, the interest rate to be determined by competitive bidding, and to issue nominally an additional \$1,244,000 of such bonds. At present the road has outstanding \$10,059,000 of series A 4 per cent first mortgage bonds, all owned by the Reconstruction Finance Corporation, but arrangements have been made to retire \$659,000 of this issue. The proceeds of the series B issue, plus other funds, would be used to retire the remaining series A bonds. In addition, the R. F. C. holds as collateral \$1,244,000 of the series A, which also would be retired, being replaced by an equal principal amount of series B, which, however, would be held in the company treasury subject to subsequent pledge with I. C. C. approval. The application stated that the interest rate on the new issue is expected to be 3¾ per cent or less. In addition to the saving thus obtained, the new issue would be more attractive, it was pointed out, be-

cause the sinking fund arrangements would provide for its full retirement at maturity.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—Equipment Trust Certificates.—This road has advised the Interstate Commerce Commission that it has accepted the bid of the Harris Trust & Savings Bank of Chicago of 100.12512 for \$2,100,000 of series Y equipment trust certificates, subject to commission approval. The dividend rate will be 1¾ per cent.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—Pays R. F. C. Loan in Full.—This road last week filed notice with the United States District Court that a sum of \$10,442,827 has been repaid to the Reconstruction Finance Corporation, together with unpaid interest at four per cent, has been paid in full. Federal Judge Michael Igoe authorized payment of the loan some time ago when the Milwaukee produced evidence to show that the road possessed assets of \$128,767,000, of which \$29,196,927 was free cash after interest and other requirements were deducted.

CHICAGO GREAT WESTERN.—Annual Report.—The 1944 annual statement of this road shows a net income, after interest and other charges, of \$2,380,024, as compared with a net income of \$2,705,827 in 1943. Selected items from the income statement follow:

| | 1944 | Increase or Decrease Compared With 1943 |
|---|--------------|---|
| Average Mileage Operated | 1,499.62 | -.55 |
| RAILWAY OPERATING REVENUES | \$30,186,963 | -\$245,462 |
| Maintenance of way and structures | 4,335,524 | +648,978 |
| Maintenance of equipment | 3,816,433 | +330,888 |
| Transportation | 11,181,431 | +1,093,733 |
| TOTAL OPERATING EXPENSES | 21,003,947 | +\$2,194,940 |
| Operating ratio | 69.58 | +7.77 |
| NET REVENUE FROM OPERATIONS | 9,183,016 | -2,440,402 |
| Railway tax accruals | 3,536,145 | -2,216,997 |
| RAILWAY OPERATING INCOME | 5,646,871 | -223,406 |
| Equipment rents—Net Dr. | 968,021 | -272,758 |
| Joint facility rents—Net Dr. | 1,321,125 | +414,960 |
| NET RAILWAY OPERATING INCOME | 3,357,724 | -365,608 |
| Total other income | 136,901 | +13,235 |
| TOTAL INCOME | 3,494,625 | -352,373 |
| Rent for leased roads | 104,025 | +106 |
| Interest on funded debt—Fixed interest | 680,581 | -22,785 |
| TOTAL FIXED CHARGES | 789,547 | -18,878 |
| NET INCOME | 2,380,024 | -325,803 |
| Disposition of net income: | | |
| Income applied to sinking and other reserve funds | 110,935 | ..... |
| Income appropriated for investment in physical property | 754,674 | -6,137 |
| Total appropriations of income | 977,209 | +105,463 |
| BALANCE OF INCOME TRANSFERRED TO EARNED SURPLUS | 1,402,815 | -431,267 |

DELAWARE, LACKAWANNA & WESTERN.—Merger of Leased Line.—Division 4 of the Interstate Commerce Commission has authorized the merger of the Morris & Essex into the Delaware, Lackawanna & Western, and in that connection has authorized the

latter company to issue \$14,934,950 of Morris & Essex division collateral trust bonds to be exchanged for 298,699 shares of Morris & Essex stock in the hands of the public. The bonds are to bear fixed interest at 4 per cent from July 1, 1942, and contingent interest at 2 per cent from a date to be determined, the latter to be payable under prescribed conditions. The 1,301 shares of Morris & Essex stock held by the D. L. & W. will not participate in the bond exchange. As collateral for the new issue, the Lackawanna has been authorized to pledge \$4,899,950 of new Morris & Essex division 4 per cent mortgage bonds, issue of which was approved at the same time, \$4,899,950 of Morris & Essex first refunding gold mortgage bonds, and \$19,834,900 of various issues of Morris & Essex construction mortgage gold bonds. The Lackawanna also was authorized to assume liability for \$35,000,000 of 3½ per cent first refunding gold mortgage bonds and \$35,000,000 of construction mortgage gold bonds of the Morris & Essex, the interest rates thereon being 4½ per cent and 5 per cent.

The transaction is the fifth of a series of seven whereby the Lackawanna has undertaken to simplify its capital structure and clear up certain disputed tax liabilities in connection with its lease agreements for operating lines forming essential parts of its system, and particularly to avoid payment of income taxes on the rental paid leased line stockholders. The Morris & Essex owns 125 miles of line in New Jersey, of which 111 is main line providing the Lackawanna access to New York. Since 1869 it has been continuously operated under lease by the Lackawanna, which company owns \$11,097,000 of Morris & Essex construction mortgage bonds.

As a result of the merger, if approved by stockholders, Morris & Essex stockholders will be relieved of possible liability for unpaid federal taxes in litigation. They have received no payments of rent under the lease since July 1, 1942, as an injunction against such payments became effective then. However, the merger arrangement provides that the Morris & Essex stockholders will reimburse the Lackawanna to the extent of one-half the expense of the settlement arrived at in the federal tax case, this to be accomplished by withholding payment of the contingent interest and sinking fund on the collateral trust bonds until the amount involved is recovered by the Lackawanna. They will obtain an improved security position, the division pointed out, as well as 4 per cent annual income in fixed interest, and 2 per cent in contingent interest, while 1¾ per cent will normally be paid into a sinking fund to retire the collateral trust bonds. Under the rental agreement, they were entitled to a return of 7¾ per cent on Morris & Essex stock, but this would be reduced to 4.65 per cent by tax deductions, on the basis of prevailing court decisions.

The Lackawanna's fixed charges would be reduced \$560,061 annually, subject to certain adjustments; it would become the owner rather than the lessee of an important link in its main line; and it would be relieved of possible liability for Morris & Essex income tax payments under a

changed interpretation of the federal tax laws. While a final settlement as to New Jersey tax liabilities has not been reached, the report notes, and a decision adverse to the Lackawanna as to issues remaining in dispute might require it to make additional payments of about \$3,700,000, this would have no direct effect on the merger transaction, as the Lackawanna would be liable in any event for the amount to be paid by the Morris & Essex.

ERIE.—Refinancing.—This company has applied to the Interstate Commerce Commission for authority to issue the following first consolidated mortgage bonds: \$33,900,000 of series F, due in 1990; \$40,000,000 of series G, due in 2000; \$5,500,000 of series H, due in 1953; and \$4,375,000 of series I, due in 1995. The new F and G series will be issued in connection with the retirement of a like principal amount of series B 4 per cent first consolidated mortgage bonds due in 1995, while the series H and I will replace collateral trust notes and be employed as substitute collateral. Of the \$87,185,500 of series B bonds issued, \$73,392,500 are outstanding in the hands of the public.

GULF, MOBILE & OHIO.—Promissory Notes.—This company has applied to the Interstate Commerce Commission for authority to issue \$376,740 of promissory notes in evidence of the unpaid portion of the purchase price of 5 1,000-hp. diesel-electric road-switching locomotives which it is acquiring from the American Locomotive Company at a cost of \$94,185 each.

LEHIGH & NEW ENGLAND.—Annual Report.—The 1944 annual report of this road shows a net income after interest and other charges of \$1,019,469, as compared with a net income of \$1,013,674 in 1943. Selected items from the income statement follow:

| | 1944 | Increase or Decrease Compared With 1943 |
|---|-------------|---|
| RAILWAY OPERATING REVENUES | \$6,270,838 | +\$231,699 |
| Maintenance of way and structures | 562,813 | -8,467 |
| Maintenance of equipment | 1,400,402 | +46,955 |
| Transportation | 1,845,306 | +88,354 |
| TOTAL OPERATING EXPENSES | 4,142,523 | +150,595 |
| Operating ratio | 66.06 | -.04 |
| NET REVENUE FROM OPERATIONS | 2,128,314 | +81,103 |
| Railway tax accruals* | 870,179 | +328,519 |
| RAILWAY OPERATING INCOME | 1,258,136 | -247,415 |
| Net rent—Cr. | 103,335 | -117,125 |
| NET RAILWAY OPERATING INCOME | 1,361,470 | -364,541 |
| Total other income | 30,477 | +1,414 |
| TOTAL INCOME | 1,391,948 | -363,126 |
| Income available for fixed charges | 1,296,850 | -27,488 |
| Interest on funded debt | 273,384 | -33,027 |
| TOTAL FIXED CHARGES | 277,380 | -33,284 |
| NET INCOME | 1,019,469 | +5,795 |
| Disposition of net income: | | |
| Income applied to sinking and other reserve funds | 101,947 | +580 |
| Balance of income transferred to earned surplus | 917,522 | +5,215 |

* Including company's estimate of Federal taxes on income.

KANSAS CITY SOUTHERN.—Annual Report.—The 1944 annual statement of this road shows a net income, after interest and other charges, of \$4,418,162, as compared with a net income of \$2,848,533 in 1943. Selected items from the income statement follow:

| | 1944 | Increase or Decrease Compared With 1943 |
|--|--------------|---|
| Average Mileage Operated | 879.33 | +1.01 |
| RAILWAY OPERATING REVENUES | \$44,373,030 | +\$1,153,997 |
| Maintenance of way and structures | 6,030,076 | -1,015,941 |
| Maintenance of equipment | 6,183,378 | +413,307 |
| Transportation | 11,852,373 | +770,842 |
| TOTAL OPERATING EXPENSES | 26,416,265 | +362,195 |
| Operating ratio | 85.46 | -3.0 |
| NET REVENUE FROM OPERATIONS | 17,956,764 | +791,802 |
| Railway tax accruals | 8,256,036 | -757,734 |
| RAILWAY OPERATING INCOME | 9,700,728 | +1,549,536 |
| Equipment rents—Net Dr. | 2,685,659 | -350,939 |
| Joint facility rents—Net Dr. | 565,023 | +439,567 |
| NET RAILWAY OPERATING INCOME | 6,450,047 | +1,460,908 |
| Total other income | 827,542 | +56,234 |
| TOTAL INCOME | 7,277,589 | +1,517,143 |
| Rent for leased roads and equipment | 12,968 | -10,001 |
| Interest on funded debt—Fixed interest | 2,780,423 | -15,366 |
| TOTAL FIXED CHARGES | 2,819,584 | -48,712 |
| NET INCOME | 4,418,162 | +1,569,629 |
| Disposition of net income: | | |
| Dividend appropriations of income—Preferred Stock Dividend | 420,000 | |
| INCOME BALANCE TRANSFERRED TO EARNED SURPLUS | 3,998,162 | +1,569,629 |

MAINE CENTRAL.—Annual Report.—The 1944 annual statement of this road shows a net income, after interest and other charges, of \$715,233 as compared with a net income of \$1,124,487 in 1943. Selected items from the income statement follow:

| | 1944 | Increase or Decrease Compared With 1943 |
|---|--------------|---|
| Average Mileage Operated | 987.86 | |
| RAILWAY OPERATING REVENUES | \$20,400,663 | +\$1,555,993 |
| Maintenance of way and structures | 4,261,280 | +1,023,162 |
| Maintenance of equipment | 3,477,280 | +207,445 |
| Transportation | 7,024,360 | +570,005 |
| TOTAL OPERATING EXPENSES | 15,532,946 | +1,860,003 |
| Operating ratio | 76.13 | +3.58 |
| NET REVENUE FROM OPERATIONS | 4,867,718 | -304,070 |
| Railway tax accruals (other than income and excess profits tax) | 1,282,722 | -69,025 |
| RAILWAY OPERATING INCOME* | 3,584,996 | -235,045 |
| Equipment and joint facility rents—Net Dr. | 412,236 | +100,905 |
| NET RAILWAY OPERATING INCOME* | 3,172,760 | -335,950 |
| Other income | 609,775 | -60,212 |
| TOTAL INCOME | 3,782,535 | -396,161 |
| Rental payment | 488,881 | -105,956 |
| Interest on debt | 1,239,824 | +27,507 |
| TOTAL DEDUCTIONS FROM GROSS INCOME | 1,775,275 | -116,633 |

| | | |
|-------------------------------|-----------|----------|
| Income and excess profits tax | 1,292,028 | +129,727 |
| NET INCOME | 715,233 | -409,254 |

* Excluding deductions for income and excess profits tax.

MISSOURI-KANSAS-TEXAS.—Election of Directors.—Marvin D. Adams, president of the stockholders' committee, and Robert D. Sanders, a member of the committee, both of Florida, have been elected to the Katy's board of directors to succeed Harry B. Lake and Lewis E. Pierson, of New York. Matthew S. Sloan, president of the company, Frank Phillips and Francis F. Randolph were re-elected. The elections followed a proxy battle and results in a 13 to 2 board majority for the present management. (Previous item in *Railway Age* of March 17, page 528.) Following the meeting Mr. Sloan issued a statement reading in part as follows:

All proposals by E. N. Claughton and his associates to take over control of the Missouri-Kansas-Texas at its annual meeting were withdrawn from the meeting by Claughton and not brought to a vote. Among his proposals was one to reduce the number of directors from 15 to 9 and another to dissolve the executive committee. Three of the management's directors were elected and two of the opposition group. This gives the management an overwhelming majority against the opposition of 13 to 2.

The vote for the opposition was 422,780 or 33.61 per cent and for the management 834,953 or 66.39 per cent—a total vote of 1,257,733 out of 1,473,889.

The board of directors and the management regard the victory in the proxy contest at the company's annual meeting of stockholders as a gratifying vote of confidence in the present management and the hearty endorsement of the sound and far-sighted policies being pursued by the management in its program of property rehabilitation and debt reduction.

The great majority of the stockholders voting at the annual meeting realize that these policies have saved their company from bankruptcy, improving the equity of their holdings and placing their company in a position to withstand any post-war contingencies that might develop.

The entire board of directors and the management of the company extend its thanks not only to the stockholders but also to the press which took an active interest in the fight. For the directors and management I pledge a continuance of the constructive policies which are establishing the Katy Railroad as a financially sound property and as one of the outstanding railroads in America.

MISSOURI PACIFIC.—Ordinance Plant Connection.—Division 4 of the Interstate Commerce Commission has denied this road's application for authority to construct a 5-mile branch from a point near Camden, Ark., to a connection with a U. S. government railroad at the Shumaker ordinance plant of the Navy. The application was opposed by the St. Louis Southwestern, which serves the plant. The Chicago, Rock Island & Pacific also serves it, having acquired trackage rights over a Cotton Belt spur, from which it built a 2.2-mile extension to join the plant tracks. The proposed M. P. line would cost about \$355,000, including a 357-ft. bridge across the Ouachita River. The division held that the Navy was "not interested" in the service proffered by the applicant, and that its estimates of the traffic to be obtained were "purely conjectural." Thus it concluded that the transportation needs of the plant can be adequately served by the existing connections and that the expenditure to build the proposed M. P. line would be unwarranted.

NEW YORK CENTRAL.—Equipment Trust Certificates.—This company has applied to the Interstate Commerce Commission for authority to assume liability for \$7,500,000

of equipment trust certificates in connection with its acquisition of 1,000 50-ft. box cars from the American Car & Foundry Company at a cost of \$3,452 each and of 2,000 40-ft. box cars from its own Despatch Shops at a cost of \$3,026 each. These cars were included in a program for the construction of 5,000 cars which was announced in 1944, the application indicated, but represents a departure in that it was then planned to build all the cars in the Despatch Shops.

During 1944, the application pointed out, the New York Central accomplished a net reduction in debt of \$33,786,774. A continuation of this program would be a more advantageous use of available funds than would cash payment for this new equipment, in view of current interest rates, it was believed.

NEW YORK, CHICAGO & ST. LOUIS.—New Bond Issue.—Another step in "streamlining" the Nickel Plate's mortgage debt structure and realizing further savings in annual interest costs was taken on April 6 when directors of the road authorized the issuance and sale at competitive bidding, on April 26, of \$58,000,000 of new 35-year bonds. Proceeds from the sale of these bonds, supplemented with treasury cash, will be used to pay off \$59,875,000 of outstanding 4½ per cent refunding mortgage bonds, due September 1, 1978. J. W. Davin, president, pointed out that completion of this refinancing will consummate a refunding program announced by the road's directors last September. First step in that program was the redemption of the extended first 3½s of 1947 with proceeds of a \$10,000,000 collateral loan and \$5,300,000 of treasury cash. This laid the foundation for the later refunding of \$6,500,000 of first mortgage 4s of 1950, \$26,058,000 of refunding mortgage 5½s of 1974, and the \$10,000,000 collateral loan through sale of a \$42,000,000 issue of new refunding mortgage 3¾ per cent bonds last December 19. The refunding mortgage then became a first and only mortgage on all of the company's lines, aggregating 1,687 miles, and the proposed new bonds will be issued under the same mortgage.

On completion of the presently proposed, refinancing, the Nickel Plate will have whittled down to \$100,000,000 its non-equipment debt which aggregated \$151,662,000 at the end of 1936. Annual interest charges, which totaled \$7,500,000 at the start of 1937, have already been reduced to \$4,650,000, and will be further reduced by the refunding now authorized.

NEW YORK, CHICAGO & ST. LOUIS.—Annual Report.—Improvement of freight and passenger services is one of the objectives of the Nickel Plate's management for the post-war period, John W. Davin, president, stated in his letter to stockholders, in the annual report for 1944, which sets forth the results of another peak year in operations. Mr. Davin emphasized the road's strengthened financial structure and its re-established credit. Two important financial transactions in 1944 eliminated the company's 1947 and 1950 maturities with the result that the mortgage debt now consists of a single refunding mortgage which is a first lien on all of the company's 1,659 miles of road owned and other property. Now

outstanding under this mortgage are the \$42,000,000 of thirty-year refunding mortgage 3¾ per cent bonds, which were sold at competitive bidding at a price of 100.529, and \$59,875,000 of 4¼ per cent bonds due in 1978. "Total debt, including equipment obligations, has been reduced to \$118,553,917, a net reduction since 1936 of \$41,789,984, or 26 per cent. Compared with 1936 fixed charges of \$7,502,000, annual fixed charges at the completion of the refunding operations will be approximately \$4,660,000." The company expects to refund its 4¼s at a lower interest rate in the near future.

Despite war-induced shortages of labor and materials, the road expended from treasury funds more than \$6,000,000 on road improvements since the beginning of 1941. The company expended for equipment in that period \$20,713,732.

The Nickel Plate's operating revenues reached a new high of \$100,458,548 in 1944, an increase of \$364,983 over the previous peak figure of \$100,093,565 reached in 1943. Operating expenses, however, were 11.1 per cent higher, due to higher wages and increased prices of material and supplies and additional maintenance work undertaken. Taxes amounting to \$23,173,015 were 12.8 per cent less than in the preceding year. Net income was \$7,225,924, compared with \$9,188,026 in 1943, a decrease of 21.4 per cent. The slight reduction in freight transportation compared with 1943 was more than offset by all-time highs in passenger, mail and express services.

NORFOLK & WESTERN.—Annual Report.—This company's 1944 annual report discloses that it broke all previous records in the volume of its freight and passenger traffic moved, and that it had the largest operating revenues, but not the largest net, in its history. The railroad's operating revenues of approximately \$160,000,000 were 6.28 per cent more than 1943, and 72 per cent more than the pre-war year of 1939. Balance of income, formerly called net income, amounted to \$22,185,000, several thousand dollars less than the previous year, and a decrease of 27 per cent from 1939. The sharp drop during the past five years was due to a 300 per cent increase in taxes and 76 per cent higher operating expenses.

Tax accruals for the year soared to \$51,675,000, an increase of 5 per cent over 1943, and a jump of 300 per cent over 1939. Representing 89 per cent of all accruals, federal taxes amounted to \$46,007,000, which included \$3,528,000 for railroad retirement and unemployment insurance taxes. Taxes took 32 cents per dollar of operating revenue, and amounted to \$37 for each share of common stock, on which the N. & W. paid dividends of \$10.

The financial statement reported a railway property investment of \$565,025,000, an average of \$25,307 per employee. Additions and betterments to the railroad's property during 1944, included 10 modern steam freight locomotives and 356 all-steel box cars, built in the railway's Roanoke, Va., shops; the purchase of 1,000 composite hopper cars of 70-ton capacity; the laying of 106 miles of track with 131-pound rail; installation of asbestos fire curtains in roundhouses at eight locations; work started on the modernization of automatic sig-

nals over 58 miles of track and centralized traffic control of switches and signals in several points; completed fireproofing of important frame interlocking plant towers at nine locations; and constructed and extended passenger sidings and storage tracks at several strategic points to accommodate increased traffic movement.

PERE MARQUETTE.—Annual Report.—The Pere Marquette's plans to put in operation two streamlined passenger trains on the Detroit-Lansing-Grand Rapids, Mich., run, are disclosed in the company's 28th annual report made public on April 11. The road now has on order two Diesel locomotives and fourteen lightweight passenger cars which are to be commissioned in service as two 7-car trains, affording three round trips daily.

From its record-breaking volumes of freight and passenger traffic in 1944, the Pere Marquette realized a new high of \$56,302,777 of operating revenues, an increase of \$1,249,973 or 2.7 per cent over 1943. Net income before railway tax accruals amounted to \$10,176,875, falling short of the figure for 1943 by \$2,054,986, or 16.8 per cent, despite the fact that tax accruals were \$1,447,542 under the accruals of the preceding year. Net income of \$3,012,076 was less by \$607,444, or 16.8 per cent, than that of 1943. In both 1944 and 1943, net income before tax accruals was divided in the same way, with 70 per cent going for taxes and 30 per cent for the use of the railroad.

The railroad continued its debt reduction policy and by the year's end had effected a decrease of \$12,067,665 in first mortgage debt and an annual reduction of \$562,333 in interest charges. Early in 1945, the company sold an issue of \$50,000,000 of 35-year first mortgage bonds at an interest rate of 3¾ per cent. The proceeds, together with treasury cash, were applied to the redemption of all of the outstanding \$52,467,335 of bonds, which bore interest at rates of 4, 4½ and 5 per cent. The interest saving resulting from this additional reduction in debt, combined with the substantial cut in interest rate on the remaining debt, brings annual interest charges on all debt, including equipment obligations, down to approximately \$1,840,000, compared with more than \$3,200,000 in 1941 before the present debt reduction program began.

Fifty-seven new industries were established on lines of the Pere Marquette during the year, making a total of 203 new industries since the beginning of 1942. These industries accounted for 87,001 cars of freight handled in the 3-year period, representing revenues amounting to \$8,680,263.

In his annual report to the stockholders, R. J. Bowman, president, voiced confidence over the company's prospects for the post-war period. "With a growing number of new industries added to those already firmly established in the territory served by your railroad, and the prospect of a continuing proportional growth in future years of the railroad's so-called overhead business, the post-war era, trafficwise, is not viewed with pessimism."

PEORIA & PEKIN UNION.—Annual Report.—The 1944 annual report of this road

shows a net income, after interest and other charges, of \$8,475, as compared with a net income of \$49,019 in 1943. Selected items from the income statement follow:

| | 1944 | Increase or Decrease Compared With 1943 |
|--|-------------|---|
| RAILWAY OPERATING REVENUES | \$1,760,913 | +\$220,758 |
| Maintenance of way and structures | 168,431 | -22,286 |
| Maintenance of equipment | 211,156 | -2,790 |
| Transportation | 989,943 | +188,123 |
| TOTAL OPERATING EXPENSES | 1,514,684 | +173,245 |
| NET REVENUE FROM OPERATIONS | 246,229 | +47,513 |
| Railway tax accruals | 263,208 | +62,136 |
| RAILWAY OPERATING INCOME—Dr. | 16,979 | +14,623 |
| Net rents—Cr. | 162,680 | -22,081 |
| NET RAILWAY OPERATING INCOME | 145,701 | -36,704 |
| Total other income | 8,003 | -2,361 |
| TOTAL INCOME | 153,703 | -39,065 |
| Rent for leased roads | 750 | ..... |
| Interest on funded debt—fixed interest | 137,500 | -768 |
| TOTAL FIXED CHARGES | 143,485 | +1,747 |
| INCOME BALANCE TRANSFERRED TO PROFIT AND LOSS | 8,475 | -40,544 |

READING.—Annual Report.—The 1944 annual statement of this company shows a net income, after interest and other fixed charges, of \$7,441,589, as compared with a net income of \$11,821,311 in 1943. Selected items from the income statement follow:

| | 1944 | Increase or Decrease Compared With 1943 |
|--|---------------|---|
| Average Mileage Operated | 1,408.21 | -10.00 |
| RAILWAY OPERATING REVENUES | \$115,793,964 | +\$2,009,294 |
| Maintenance of way and structures | 16,269,767 | +4,261,041 |
| Maintenance of equipment | 23,004,982 | +1,480,975 |
| Transportation | 39,911,060 | +2,994,380 |
| TOTAL OPERATING EXPENSES | 82,691,229 | +9,012,020 |
| Operating ratio | 71.41 | +6.66 |
| NET REVENUE FROM OPERATIONS | 33,102,735 | -7,002,726 |
| Railway tax accruals | 18,629,413 | -1,992,895 |
| RAILWAY OPERATING INCOME | 14,473,322 | -5,009,831 |
| Hire of freight cars, Net Dr. | 853,215 | -325,563 |
| Joint facility rents, Net Dr. | 329,796 | -39,829 |
| NET RAILWAY OPERATING INCOME | 13,372,055 | -4,552,928 |
| Non-operating income | 1,994,182 | -20,618 |
| GROSS INCOME | 15,366,237 | -4,573,545 |
| Rent for leased roads | 2,692,623 | -103,020 |
| Interest on funded debt | 4,480,730 | -33,423 |
| TOTAL DEDUCTIONS FROM GROSS INCOME | 7,924,648 | -193,824 |
| NET INCOME | 7,441,589 | -4,379,722 |
| Disposition of net income: | | |
| Dividend appropriations of income | 419,656 | ..... |
| Miscellaneous appropriations of income | 2,380,000 | ..... |
| INCOME BALANCE TRANSFERRED TO PROFIT AND LOSS | \$4,641,933 | -\$4,379,722 |

ST. JOHNSBURY & LAKE CHAMPLAIN.—Counsel for Trustee.—Division 4 of the

Interstate Commerce Commission has approved as reasonable annual compensation of \$4,500 for Sterry R. Waterman, counsel for the trustee in this road's reorganization proceedings under section 77 of the Bankruptcy Act.

LEHIGH & NEW ENGLAND.—Promissory Notes.—Division 4 of the Interstate Commerce Commission has authorized this road to issue \$1,156,000 of promissory notes in further evidence, but not in payment, of the unpaid principal on certain conditional sale and lease agreements for the purchase of equipment obtained from 1938 to 1941, inclusive, in order to meet tax law requirements.

TERMINAL ASSOCIATION OF ST. LOUIS.—New Director Appointed.—Frank A. Thompson, trustee of the St. Louis-San Francisco at St. Louis, Mo., has been elected a member of the board of the Terminal Association of St. Louis, with the same headquarters.

TOLEDO, PEORIA & WESTERN.—Notes.—Having been advised by George P. McNear, Jr., president, that this road has accepted an advance of \$100,000 from the Office of Defense Transportation, which is operating its property under the terms of an Executive Order, with which to satisfy certain obligations and corporate expenses, Division 4 of the Interstate Commerce Commission has set aside its order authorizing the road to issue notes in that amount, for the same purposes, as reported in *Railway Age* of February 17, page 365.

Average Prices Stocks and Bonds

| | April 10 | Last week | Last year |
|---|----------|-----------|-----------|
| Average price of 20 representative railway stocks | 50.43 | 49.90 | 40.65 |
| Average price of 20 representative railway bonds | 96.34 | 95.92 | 88.06 |

Dividends Declared

Chicago & Eastern Illinois.—\$1.00, payable May 5 to holders of record April 23.
Cleveland, Cincinnati, Chicago & St. Louis.—5% preferred, \$1.25, quarterly, payable April 30 to holders of record April 19.
Minneapolis & St. Louis.—\$1.00, payable May 15 to holders of record May 1.
Northern of New Hampshire.—\$1.50, quarterly, payable April 30 to holders of record April 12.

Abandonments

CHICAGO & NORTH WESTERN.—Division 4 of the Interstate Commerce Commission has authorized this road to abandon a branch extending from Beaton, Mich., 7 miles northerly into a cut-over lumbering section.

DELTA VALLEY & SOUTHERN.—Finding that no trains have been operated on the line since 1938, and that public need for it no longer exists, Division 4 of the Interstate Commerce Commission has authorized this road to abandon a portion of its line from Denwood, Ark., to Deckerville, 5.4 miles.

ILLINOIS CENTRAL.—This company has asked the Interstate Commerce Commission for authority to abandon operation of a 5.47-mile segment of line in the vicinity of Gilbertsville, Ky., upon beginning operation over an alternate line built by the

Tennessee Valley Authority in connection with the construction of a dam in the Tennessee river. At the same time, its subsidiary, the Chicago, St. Louis & New Orleans, asked for authority to abandon the segment.

LAWNDALE.—Division 4 of the Interstate Commerce Commission has authorized the Lawndale Railway & Industrial Company to abandon, as to interstate and foreign commerce, its entire narrow-gage line from Lawndale, N. C., to Shelby, 11 miles.

SABINE & NECHES VALLEY.—Finding that the line has served the purpose for which it was built, Division 4 of the Interstate Commerce Commission has authorized this road to abandon its entire line from Gist, Tex., to Deweyville, 11.76 miles, and to abandon operation under trackage rights over the Kansas City Southern from Deweyville to Ruliff, 1.54 miles.

Railway Officers

EXECUTIVE

Claude E. Peterson, assistant vice-president of the Southern Pacific at San Francisco, Cal., has been elected vice-president in charge of system passenger traffic, with the same headquarters.

R. W. Barnes, chief engineer of the Southern Pacific Lines in Texas and Louisiana, at Houston, Tex., has been elected vice-president with the same headquarters, succeeding **Everette A. Craft**, whose promotion to executive vice-president, with headquarters at Houston, was reported in the *Railway Age* of April 7. **H. J. McKenzie**, assistant chief engineer, has been advanced to chief engineer, replacing **Mr. Barnes**, and **L. A. Loggins**, division engineer of the Houston division, has been promoted to assistant to the chief engineer, with headquarters at Houston.

Herman F. Bohr, formerly vice-president of the Tennessee, Alabama & Georgia, has been elected president of this road, following the retirement of **George H. Burgess**, for 16 years chief executive. **Miles C. Kennedy**, a partner of the New York firm of Coverdale & Colpitts, has been named chairman of the board, and **D. E. Hedges**, vice-president and comptroller. All other officers were re-elected.

Mr. Bohr has been employed by this railroad for 45 years, having first entered service there as a messenger boy in 1900. He succeeded to telegraph operator, car accountant, train dispatcher, traffic manager and vice-president. When a syndicate, headed by Coverdale & Colpitts, purchased this railway in 1929, **Mr. Bohr** retained his position of vice-president and had charge of construction and re-building of the line. **Mr. Bohr** also is a member of the board of directors of the American Short Line Railroad Association.

Mr. Hedges has been with the T. A. & G., since 1910, having served successively in the engineering and accounting depart-

ments. He was appointed auditor in 1912, and comptroller and assistant secretary in 1929.

Jacob Aronson, vice-president law, New York Central System, on April 11 was elected a director of the New York Central Railroad Company, to fill the vacancy created by the death of Leon Fraser.

Mr. Aronson, a native of Brooklyn, and now a resident of Scarsdale, N. Y., entered the New York Central law department, November 1, 1906, soon after his graduation from the Brooklyn Law School of St. Lawrence University. He was made assistant general attorney in 1922, and four years later was appointed assistant general counsel. On November 16, 1929, he became general counsel, and on May 1, 1933, vice-president law. Mr. Aronson is an officer or director of many of the affiliated and subsidiary companies in the New York Central System, and a member of the law committee of the Association of American Railroads. In 1934 he received an honorary LL.D. degree from St. Lawrence University.

Hugh Shoobridge, whose appointment as assistant to vice-president, special duties, of the Canadian Pacific at Montreal, Que., was announced in the *Railway Age* of



Hugh Shoobridge

March 31, was born in England in 1894 and was educated at Chelmsford College. After serving briefly with the British government, Mr. Shoobridge joined the Canadian Pacific in October, 1913, and served variously as clerk, assistant timekeeper, and timekeeper, at Sudbury, Ont., Cartier and North Bay until January, 1920, when he was named chief timekeeper at North Bay, becoming statistician the following May. He went to Montreal in July, 1923, as assistant statistician in the office of the vice-president, and ten years later he was promoted to statistician, the position he held at the time of his recent appointment as assistant to vice-president, special duties:

FINANCIAL, LEGAL AND ACCOUNTING

Fred G. Schwab, general chief clerk of the auditor of passenger accounts of the Louisville & Nashville at Louisville, Ky., has been promoted to auditor of passenger

accounts, with the same headquarters, succeeding **W. A. Meglemry**, who has retired after 62 years of service. Mr. Schwab was born at Louisville and in May, 1909, he entered railway service as a ticket clerk of the L. & N., at Louisville. He subsequently held several minor positions in the office of the auditor of passenger accounts



Fred G. Schwab

until March 1, 1924, when he was promoted to general chief clerk of that department, the position he held at the time of his new promotion.

A. F. Reed, acting auditor of passenger accounts of the Union Pacific at Omaha, Neb., has been promoted to auditor of passenger accounts, with the same headquarters, succeeding **Frank W. Franek**, whose retirement was reported in the *Railway Age* of January 13.

Joseph A. McClain, Jr., whose appointment as general counsel of the Wabash with headquarters at St. Louis, Mo., was announced in the *Railway Age* of March 31, was born in Ringgold, Ga., in May, 1903, and received his higher education at Mercer, Yale and Tulane Universities. After teaching law at several universities from 1924 to 1942, he entered railway ser-



Joseph A. McClain, Jr.

vice as general counsel of the Terminal Railroad Association of St. Louis in the latter year. In March, 1944, Mr. McClain was promoted to vice-president and general counsel, the position he held at the time of his new appointment.

Thomas Lewis Preston, whose appointment as assistant general counsel of the Association of American Railroads at Washington, D. C., was announced in the *Railway Age* of March 24, was born at Richmond, Va., on October 25, 1897. He was graduated from the University of Virginia with a B. S. degree in 1918, and received his B. L. degree from that institution in 1922. In December, 1918, he was commissioned second lieutenant, field artillery, United States Army, and attended Harvard Medical School from January to September, 1919. Mr. Preston entered railroad service on March 1, 1928, as an attorney of the Chesapeake & Ohio, serving in this capacity until July, 1933, when he became assistant general solicitor of that road. He was named general solicitor in March, 1938, and he remained in that post until October, 1943, when he joined the Seaboard Air Line as general solicitor for the receivers at Norfolk, Va., the position he held at the time of his recent appointment as assistant general counsel of the A. A. R.

OPERATING

Robert Aitken, whose appointment as superintendent of transportation, express department, of the Canadian National at



Robert Aitken

Montreal, Que., was announced in the *Railway Age* of March 31, was born at Blackpool, England, on February 16, 1896, and joined the Canadian Express Co. (part of the Canadian National) in June, 1919, as a clerk at Winnipeg, Man. He became cashier the following November, and one year later he was appointed clerk in the office of the superintendent there, being promoted to traffic clerk in November, 1927. He was named assistant chief clerk in the joint office of the general superintendent and superintendent at Winnipeg on December 19, 1928, and was advanced to chief clerk in the office of the general manager at Montreal on November 1, 1931. In December, 1943, Mr. Aitken was named special representative in the office of the general manager, the position he held at the time of his recent elevation to superintendent of transportation.

T. S. Stewart, superintendent of the Houston division of the Southern Pacific at Houston, Tex., has been promoted to

second assistant manager of personnel, with the same headquarters. **R. de Waal**, assistant superintendent of the Dallas and Austin divisions at Ennis, Tex., has been advanced to superintendent of those divisions, with the same headquarters, replacing **H. L. Bell**, who has been transferred to the Houston division, relieving Mr. Stewart.

Charles Edward Potts, whose appointment as assistant general manager, express department, of the Canadian National at Montreal, Que., was announced in the *Railway Age* of March 31, was born at Toronto, Ont., on October 20, 1892, and entered the service of the Canadian Northern Express Co. (now part of the Canadian National) as a clerk at Winnipeg, Man., on August 8, 1912. After transferring to Toronto in June, 1913, he was appointed assistant agent at Valcartier, Que., two years later, returning to Toronto in November, 1915, as chief clerk in the office of the superintendent there. He was promoted to traveling agent at Toronto in August, 1917, and after serving as senior traveling agent, chief clerk in the super-



Charles Edward Potts

intendent's office at London, Ont., and traveling agent at Montreal successively until November, 1922, he was named chief clerk in the office of the general manager at Montreal. In February, 1931, Mr. Potts became general accountant at Montreal, and he was advanced to office assistant to the general manager there on January 1, 1933. On June 1, 1937, he was appointed assistant to the general manager, express department, the position he held at the time of his recent promotion to assistant general manager.

W. S. Butler, assistant terminal trainmaster of the Chesapeake & Ohio at Russell, Ky., has been appointed acting trainmaster at Cheviot, Ohio, succeeding **F. J. Moreland**, deceased.

Alberto C. Garduno, superintendent of the Gulf division of the National Railways of Mexico at Monterey, N. L., has been promoted to general superintendent of transportation, with headquarters at Mexico City, D. F.

A. J. Horton, superintendent of the St. Joseph division of the Chicago, Burlington & Quincy at St. Joseph, Mo., has

been promoted to assistant general manager, labor relations, with headquarters at Omaha, Neb. **F. B. Whitman**, superintendent of the McCook division at McCook, Neb., has been advanced to assistant general superintendent, labor relations, with headquarters at Lincoln, Neb. **G. W. Eckhardt**, assistant to the general manager at Omaha, has been promoted to division superintendent at St. Joseph, succeeding Mr. Horton, and **H. E. Hinshaw**, superintendent of the Hannibal division, has been transferred to the McCook division, replacing Mr. Whitman. **W. F. Giles, Jr.**, assistant superintendent of the Wymore division at Wymore, Neb., has been advanced to assistant to the general manager at Omaha, relieving Mr. Eckhardt. **S. R. Harris**, trainmaster at Wymore, has been promoted to assistant division superintendent, with the same headquarters, succeeding Mr. Giles. **A. E. Stoll**, assistant superintendent of the Omaha division, has been advanced to superintendent of the Hannibal division, replacing Mr. Hinshaw. **E. L. Portarf**, assistant division superintendent at Sterling, Colo., has been appointed assistant superintendent, labor relations, with headquarters at Alliance, Neb., and **E. R. Shrader**, trainmaster at McCook, has been advanced to assistant superintendent at Sterling, succeeding Mr. Portarf. **L. L. Smith**, assistant superintendent of terminals at St. Paul, Minn., has been promoted to superintendent of terminals, with the same headquarters.

TRAFFIC

Cecil L. Butler, whose promotion to assistant freight traffic manager of the Missouri Pacific, with headquarters at St. Louis, Mo., was reported in the *Railway Age* of April 7, was born at Lovelady, Tex., on August 15, 1898, and entered railway service on April 17, 1920, as a clerk in the local freight office of the International Great Northern (part of the Missouri Pacific system) at Palestine, Tex. On January



Cecil L. Butler

15, 1923, he was transferred to the freight claim department at Palestine as claim investigator and on April 7, 1924, he was appointed rate clerk. On January 1, 1928, he was transferred to Houston, Tex., and on July 1, 1932, to St. Louis, Mo. Mr. Butler was promoted to assistant general freight agent at St. Louis on April 16, 1934,

and in October, 1941, he was advanced to general freight agent. In June, 1943, he was promoted to traffic assistant, research bureau, with the same headquarters, later becoming general freight agent, the position he held at the time of his new promotion.

Neill A. Mitts, ticket agent of the Delaware, Lackawanna & Western at Binghamton, N. Y., has been promoted to general agent of the passenger department at Buffalo, N. Y., succeeding **L. F. Heineck**, whose transfer to Philadelphia, Pa., was announced in the *Railway Age* of March 31.

Clifford William Smith, whose appointment as superintendent of traffic, express department, of the Canadian National, with headquarters at Montreal, Que., was announced in the *Railway Age* of March 31, was born at Birmingham, England, and entered railroading with the Canadian Northern (now the Canadian National) as a day assistant in the operating department at Brandon, Man., in July, 1910. He resigned in April, 1912, and joined the Canadian Northern Express (now a part of the Canadian National) in October,



Clifford William Smith

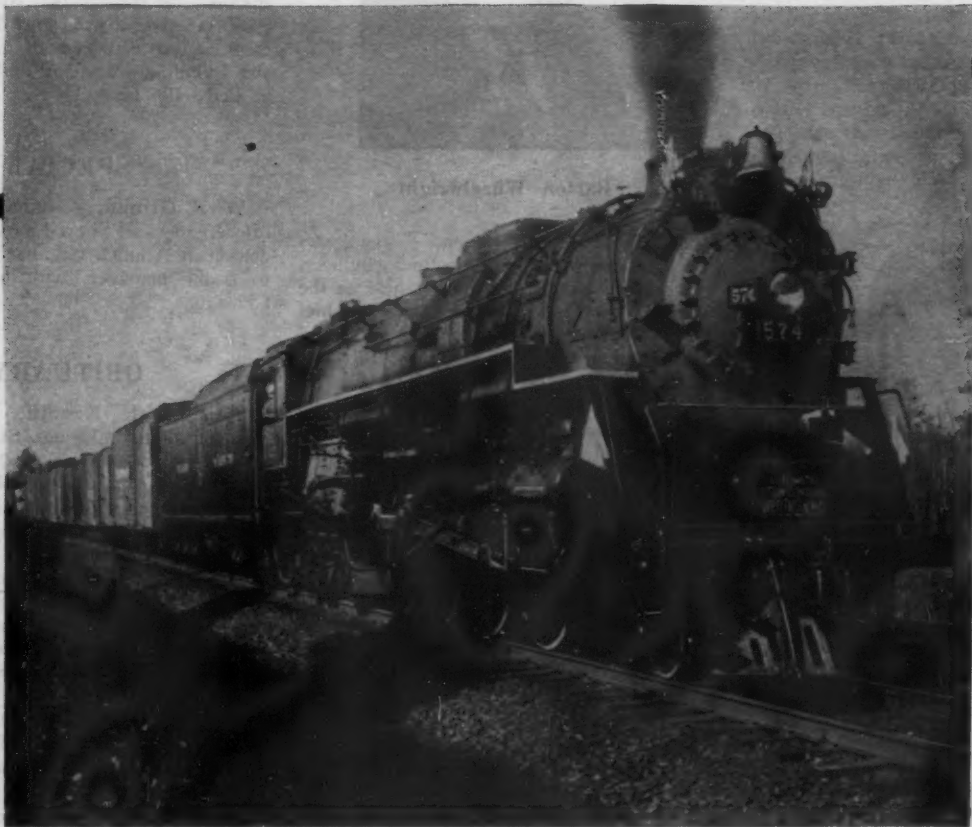
1912, as a clerk at Brandon, transferring in March, 1914, to Calgary, Alta., where he became cashier the following August. After serving with the armed forces from June, 1917, to June, 1919, he returned to Calgary as cashier, and was appointed chief clerk there on April 29, 1920. He served as traveling agent at Edmonton, Alta., from October, 1922, to April, 1937, when he was appointed agent at Calgary, becoming general agent at Winnipeg, Man., in July, 1939. Mr. Smith was promoted to superintendent of transportation at Montreal on May 26, 1942, and remained in that post until his recent advancement to superintendent of traffic with the same headquarters.

ENGINEERING & SIGNALING

N. A. Peebles has been appointed electronic engineer of the Atlantic Coast Line with headquarters at Wilmington, N. C.

S. G. Raber, superintendent telegraph and signals of the New York, Chicago & St. Louis at Cleveland, has been appointed signal engineer with the same headquarters. **H. G. Stiebeling**, assistant signal super-

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intendent; has been named assistant signal engineer, with headquarters, as before, at Cleveland, and **R. C. Wickizer** has been appointed superintendent of communications there. **F. H. Schultze**, assistant superintendent telegraph, has been named assistant superintendent communications, also at Cleveland.

W. G. Kemmerer, whose appointment as assistant engineer, bridges and buildings, of the Pennsylvania's New York zone with headquarters at New York was announced in the *Railway Age* of March 24, was born at Camden, N. J., and was graduated from Purdue University with the degree of Bachelor of Science in civil engineering. He joined the Pennsylvania in April, 1913, as a draftsman on the Delaware division at Wilmington, Del., and served subsequently as transitman, assistant supervisor, bridge inspector, supervisor of track, and master carpenter on the Alleghany, Renovo, Pittsburgh, and eastern divisions until 1929, when he was named assistant engineer in the office of the chief engineer, maintenance of way, western region, at Chicago, the position he held at the time of his recent appointment as assistant engineer, bridges and buildings, New York zone.



W. G. Kemmerer

nance of way, western region, at Chicago, the position he held at the time of his recent appointment as assistant engineer, bridges and buildings, New York zone.

Barton Wheelwright, chief engineer of the central region of the Canadian National at Toronto, Ont., has been appointed chief engineer (operating) for the entire system, with headquarters at Montreal, Que., succeeding **Howard A. Dixon**, who has retired after 42 years of service. Mr. Wheelwright, who was born at Minneapolis, Minn., on March 12, 1888, attended Massachusetts Institute of Technology, and received his A. B. degree from Harvard University in 1910 and his M. E. E. degree from Harvard in 1911. He entered railroading in June, 1911, as a draftsman with the Grand Trunk (part of the Canadian National) at Toronto, Ont., and transferred to the signal department in April, 1912. After serving as assistant signal engineer from December, 1914, to June, 1916, he was appointed acting signal engineer. In October, 1917, he became engineer, maintenance of way, of the Grand Trunk lines in New England, and at the close of federal control he was named engineer-accountant to deal with matters pertaining to settlement between the corporation and the United States Railroad Administration. Mr. Wheel-

wright served as special engineer of the Canadian National from March, 1923, to January, 1928, when he became assistant to the chief engineer, and in July, 1936, he was appointed engineer, maintenance of



Barton Wheelwright

way, of the central region. Three years later he was promoted to chief engineer, central region, the position he held at the time of his recent advancement to chief engineer (operating), system.

Mr. Dixon was born at Sand Hill, Ont., on October 7, 1878, and received his B. A. degree from the University of Toronto. After working as a land surveyor in Ontario and Manitoba, he joined the Canadian Northern (now the Canadian National) in March, 1903, at Winnipeg, Man., and shortly thereafter was appointed resident engineer. Mr. Dixon served as supervisor of various engineering activities at Maryfield, Sask., Red Pass Junction, Resplendent, B. C., and Vancouver, until



Howard A. Dixon

1919, when he was appointed chief engineer of the western region. He was promoted to chief engineer (operating) of the system at Montreal on January 1, 1940, and remained in that position until his recent retirement.

MECHANICAL

J. M. Nixon, general foreman of the Seaboard Air Line's shops at Wildwood, Fla., has been appointed superintendent,

motive power, of the Macon, Dublin & Savannah, with headquarters at Macon, Ga.

F. L. Henig, general foreman, locomotive department, of the Missouri Pacific at Little Rock, Ark., has been appointed acting superintendent of shops, with the same headquarters, succeeding to the duties of **A. Hubener**, who has been granted a leave of absence due to illness.

Ralph O. Williams, car foreman of the Union Pacific at Nampa, Idaho, has been promoted to general car inspector, south-central district, with headquarters at Salt Lake City, Utah. **F. C. Fye**, assistant engineer car construction, at Omaha, Neb., has been advanced to general car inspector, northwestern district and Idaho division to and including Pocatello, with headquarters at Pocatello, Idaho.

SPECIAL

W. R. Grimm, assistant traffic manager of the American Short Line Railroad Association at Atlanta, Ga., has been promoted to traffic manager, with headquarters at Chicago.

OBITUARY

Thomas J. Kenniff, freight traffic manager of the Chicago, St. Paul, Minneapolis & Omaha, with headquarters at St. Paul, Minn., died in that city on April 7. Mr. Kenniff was born at Marquette, Mich., on February 16, 1883, and entered railway service with the Omaha on April 26, 1908, as a clerk. He served consecutively as agent, soliciting freight agent, commercial agent and general agent until May, 1922, when he was promoted to assistant general freight agent, with headquarters at St. Paul. In June, 1929, Mr. Kenniff was advanced to general freight agent, and in June, 1938, he was promoted to the position he held at the time of his passing.

Harry W. Ridgway, who retired in 1936 as superintendent of motive power of the Colorado & Southern, died in a Denver (Colo.) hospital on March 17. Mr. Ridgway was born at Delaware Water Gap, Pa., on July 17, 1866, and entered railway service in November, 1881, as a mechanical apprentice on the Denver & Rio Grande Western, serving in various capacities in the mechanical departments of this company and of the Mexican Central until 1901 when he was appointed superintendent of machinery of the El Paso & Northeastern (now part of the Southern Pacific), later being appointed superintendent of the contract shop. In 1904 he returned to the Mexican Central as superintendent of shops at Agua Caliente, Mex., and from 1906 to 1913 he served as master mechanic on the Colorado & Southern and the Atchison, Topeka & Santa Fe at Denver. At the end of this period he was appointed superintendent of motive power of the C. & S., which position he held until his retirement. From 1924 to 1932 he also served as assistant to the superintendent of motive power of the Chicago, Burlington & Quincy.

The Franklin System of Steam Distribution

OVERCOMES LIMITATIONS IMPOSED ON LOCOMOTIVE DESIGN

●

Eliminating the design limitations imposed on the cylinders by piston valves and valve gears of conventional systems of steam distribution, The Franklin System makes it possible to utilize the full boiler capacity of the locomotive throughout the speed range.



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK • CHICAGO

In Canada: FRANKLIN RAILWAY SUPPLY COMPANY, LIMITED, MONTREAL

REVENUES AND EXPENSES OF RAILWAYS

Month of February and Two Months of Calendar Year 1945.

| Name of road | Av. mileage operated during period | Operating revenues | | | Operating expenses | | | Operating ratio | Net from railway operation | Net railway operating income | |
|------------------------------------|------------------------------------|--------------------|------------|--------------------|-----------------------------------|------------|-----------|-----------------|----------------------------|------------------------------|-----------|
| | | Freight | Passenger | Total (inc. misc.) | Maintenance of way and structures | Equipment | Traffic | | | 1945 | 1944 |
| Akron, Canton & Youngstown | Feb. 171 | \$405,583 | \$132 | \$419,541 | \$55,702 | \$37,304 | \$20,650 | 61.1 | \$163,048 | \$66,572 | \$67,265 |
| Alton | 2 mos. 170 | 856,078 | 351 | 856,809 | 28,892 | 75,890 | 39,777 | 62.8 | 319,058 | 138,580 | 146,820 |
| Alton | Feb. 959 | 1,260,153 | 629,344 | 2,938,670 | 289,480 | 466,980 | 1,272,022 | 67.3 | 961,667 | 371,999 | 493,291 |
| Alton | 2 mos. 959 | 3,778,017 | 1,276,254 | 5,731,220 | 590,724 | 943,207 | 1,395,973 | 70.7 | 1,681,229 | 586,839 | 913,774 |
| Atchison, Topeka & Santa Fe System | Feb. 13,115 | 31,048,050 | 7,703,998 | 41,699,259 | 5,451,029 | 6,907,956 | 686,063 | 59.6 | 16,858,083 | 4,532,573 | 4,379,889 |
| Atlanta & West Point | 2 mos. 13,115 | 64,184,087 | 16,665,678 | 86,558,221 | 10,879,376 | 14,266,027 | 1,264,058 | 59.1 | 35,443,944 | 9,360,555 | 8,324,649 |
| Atlanta & West Point | Feb. 93 | 247,458 | 128,114 | 414,583 | 54,587 | 55,387 | 10,754 | 72.6 | 113,591 | 57,509 | 29,234 |
| Atlanta & West Point | 2 mos. 93 | 571,193 | 250,656 | 904,262 | 103,618 | 115,103 | 21,196 | 69.3 | 277,825 | 159,962 | 60,801 |
| Western of Alabama | Feb. 133 | 233,006 | 136,472 | 400,400 | 47,175 | 64,378 | 10,561 | 71.4 | 114,390 | 71,964 | 46,189 |
| Atlanta, Birmingham & Coast | 2 mos. 133 | 534,121 | 272,041 | 874,779 | 102,897 | 130,145 | 21,235 | 68.7 | 274,079 | 180,034 | 94,319 |
| Atlanta, Birmingham & Coast | Feb. 639 | 755,759 | 41,449 | 830,466 | 107,250 | 104,280 | 29,803 | 62.81 | 308,834 | 134,478 | 134,448 |
| Atlanta, Birmingham & Coast | 2 mos. 639 | 1,350,028 | 92,422 | 1,500,806 | 214,652 | 232,108 | 59,710 | 71.23 | 431,797 | 194,728 | 60,904 |
| Atlantic Coast Line | Feb. 4,935 | 8,113,352 | 3,628,219 | 12,500,215 | 1,597,204 | 2,148,674 | 202,466 | 65.6 | 4,300,170 | 3,000,000 | 824,889 |
| Atlantic Coast Line | 2 mos. 4,935 | 17,491,427 | 7,366,067 | 26,438,963 | 3,236,337 | 4,461,559 | 406,753 | 64.0 | 9,526,272 | 6,700,000 | 1,781,016 |
| Atlantic Coast Line | Feb. 343 | 319,359 | 12,661 | 343,714 | 56,327 | 56,327 | 10,205 | 71.1 | 99,280 | 50,000 | 45,865 |
| Atlantic Coast Line | 2 mos. 343 | 667,511 | 25,380 | 712,788 | 101,646 | 119,615 | 20,364 | 70.2 | 212,111 | 115,000 | 91,034 |
| Baltimore & Ohio | Feb. 6,133 | 24,284,747 | 3,929,503 | 29,836,892 | 3,535,691 | 6,415,940 | 533,373 | 73.8 | 7,816,485 | 3,912,389 | 3,423,143 |
| Baltimore & Ohio | 2 mos. 6,133 | 48,609,535 | 8,322,831 | 60,237,815 | 7,006,207 | 13,065,583 | 958,012 | 74.4 | 15,445,636 | 7,624,018 | 6,800,264 |
| Baltimore & Ohio | Feb. 29 | 307,415 | 128,633 | 443,645 | 41,659 | 58,867 | 11,404 | 67.1 | 146,053 | 48,839 | 58,718 |
| Baltimore & Ohio | 2 mos. 29 | 642,950 | 264,732 | 922,030 | 96,435 | 122,521 | 2,735 | 67.6 | 298,323 | 102,333 | 126,575 |
| Bangor & Aroostook | Feb. 602 | 938,848 | 62,687 | 1,001,190 | 198,723 | 137,128 | 53,373 | 63.7 | 374,012 | 243,944 | 128,426 |
| Bangor & Aroostook | 2 mos. 602 | 1,933,297 | 128,653 | 2,061,950 | 387,753 | 267,269 | 15,672 | 62.0 | 743,306 | 543,426 | 264,576 |
| Bangor & Aroostook | Feb. 214 | 880,620 | 2,863 | 897,097 | 121,483 | 722,906 | 21,748 | 130.9 | 27,498 | 53,705 | 14,308 |
| Bangor & Aroostook | 2 mos. 214 | 1,611,110 | 6,153 | 1,649,973 | 250,409 | 1,452,564 | 35,672 | 142.3 | 698,335 | 106,072 | 221,798 |
| Boston & Maine | Feb. 1,789 | 4,530,784 | 1,541,821 | 6,640,961 | 1,203,136 | 1,252,975 | 105,777 | 82.1 | 1,192,276 | 476,382 | 382,061 |
| Boston & Maine | 2 mos. 1,789 | 9,137,809 | 3,008,700 | 13,312,734 | 2,425,129 | 2,645,309 | 193,965 | 84.2 | 2,107,227 | 964,685 | 524,820 |
| Boston & Maine | Feb. 228 | 117,913 | 63,621 | 197,164 | 33,599 | 20,168 | 3,445 | 75.2 | 48,994 | 8,489 | 10,625 |
| Boston & Maine | 2 mos. 228 | 275,186 | 131,317 | 439,072 | 62,235 | 42,052 | 7,831 | 69.8 | 132,665 | 18,474 | 50,779 |
| Cambria & Indiana | Feb. 35 | 136,208 | ..... | 136,392 | 7,845 | 43,516 | 537 | 56.6 | 59,198 | 99,061 | 51,233 |
| Cambria & Indiana | 2 mos. 35 | 261,182 | ..... | 261,428 | 16,335 | 90,590 | 1,311 | 61.1 | 101,673 | 177,608 | 99,095 |
| Cambria & Indiana | Feb. 234 | 422,650 | 69,552 | 518,067 | 60,384 | 83,842 | 6,829 | 70.3 | 153,935 | 22,321 | 54,796 |
| Cambria & Indiana | 2 mos. 234 | 946,736 | 179,523 | 1,181,873 | 166,130 | 154,647 | 13,497 | 63.4 | 433,027 | 44,784 | 222,106 |
| Canadian Pacific Lines in Maine | Feb. 90 | 58,865 | 18,733 | 90,298 | 35,657 | 35,536 | 2,548 | 211.9 | 101,019 | 10,759 | 133,633 |
| Canadian Pacific Lines in Maine | 2 mos. 90 | 126,111 | 40,203 | 191,221 | 72,346 | 65,487 | 4,967 | 189.9 | 171,945 | 20,686 | 258,964 |
| Canadian Pacific Lines in Maine | Feb. 1,815 | 2,192,845 | 629,575 | 3,169,458 | 425,984 | 555,372 | 69,129 | 77.8 | 702,356 | 230,371 | 406,727 |
| Canadian Pacific Lines in Maine | 2 mos. 1,815 | 4,545,016 | 1,397,192 | 6,589,056 | 867,581 | 1,168,919 | 145,086 | 76.0 | 1,582,737 | 514,877 | 918,740 |
| Central of New Jersey | Feb. 654 | 3,735,035 | 558,267 | 4,567,152 | 470,170 | 852,829 | 57,820 | 77.0 | 1,049,279 | 429,868 | 454,205 |
| Central of New Jersey | 2 mos. 654 | 7,413,936 | 1,149,978 | 9,162,731 | 968,219 | 1,816,306 | 114,822 | 79.9 | 1,843,198 | 868,071 | 589,197 |
| Central of New Jersey | Feb. 422 | 650,662 | 76,000 | 770,319 | 101,072 | 121,147 | 9,608 | 80.9 | 147,222 | 44,195 | 63,862 |
| Central of New Jersey | 2 mos. 422 | 1,044,218 | 149,000 | 1,341,633 | 203,910 | 249,340 | 19,246 | 91.2 | 118,078 | 91,412 | 63,812 |
| Chesapeake & Ohio | Feb. 3,076 | 15,028,047 | 1,486,414 | 16,988,772 | 2,115,311 | 3,732,834 | 265,762 | 66.9 | 5,630,288 | 3,488,620 | 2,704,242 |
| Chesapeake & Ohio | 2 mos. 3,076 | 29,055,788 | 2,851,510 | 33,781,572 | 4,280,727 | 7,568,211 | 526,406 | 68.5 | 10,488,068 | 6,562,343 | 5,220,204 |
| Chesapeake & Ohio | Feb. 912 | 1,437,018 | 487,807 | 2,343,438 | 288,457 | 476,860 | 70,344 | 74.8 | 590,157 | 208,000 | 212,488 |
| Chesapeake & Ohio | 2 mos. 912 | 3,428,136 | 1,059,657 | 4,949,884 | 630,866 | 891,036 | 141,878 | 73.8 | 1,196,229 | 414,000 | 415,440 |
| Chicago & Illinois Midland | Feb. 131 | 456,101 | 1,297 | 481,995 | 56,060 | 91,459 | 21,415 | 68.0 | 154,436 | 98,847 | 68,229 |
| Chicago & Illinois Midland | 2 mos. 131 | 973,954 | 2,626 | 1,022,926 | 118,929 | 183,921 | 49,320 | 67.8 | 329,018 | 203,999 | 138,910 |
| Chicago & Illinois Midland | Feb. 8,072 | 2,676,343 | 1,024,659 | 3,845,726 | 2,649,511 | 2,649,511 | 216,304 | 76.5 | 2,995,430 | 1,553,740 | 1,436,065 |
| Chicago & Illinois Midland | 2 mos. 8,072 | 17,255,406 | 5,575,432 | 25,846,368 | 3,609,765 | 5,283,718 | 439,135 | 76.9 | 5,975,901 | 3,007,080 | 2,962,591 |
| Chicago, Burlington & Quincy | Feb. 8,987 | 14,920,961 | 2,762,800 | 19,439,613 | 2,026,952 | 3,018,149 | 263,009 | 54.5 | 8,842,229 | 5,909,074 | 2,634,288 |
| Chicago, Burlington & Quincy | 2 mos. 8,987 | 31,100,961 | 6,109,023 | 40,753,572 | 4,319,609 | 5,937,837 | 521,293 | 53.4 | 18,990,928 | 11,983,993 | 6,334,908 |
| Chicago, Burlington & Quincy | Feb. 1,500 | 1,962,934 | 177,103 | 2,138,040 | 363,821 | 310,187 | 61,558 | 73.6 | 611,445 | 244,755 | 227,634 |
| Chicago, Burlington & Quincy | 2 mos. 1,500 | 4,069,464 | 386,486 | 4,836,699 | 735,759 | 632,035 | 132,871 | 73.8 | 1,267,439 | 501,238 | 464,197 |
| Chicago, Indianapolis & Louisville | Feb. 541 | 968,796 | 89,026 | 1,120,229 | 95,214 | 180,825 | 34,642 | 61.8 | 431,873 | 128,503 | 242,734 |
| Chicago, Indianapolis & Louisville | 2 mos. 541 | 1,939,635 | 185,063 | 2,273,857 | 207,240 | 371,697 | 68,151 | 64.0 | 817,692 | 228,965 | 470,381 |
| Chicago, Indianapolis & Louisville | Feb. 541 | 968,796 | 89,026 | 1,120,229 | 95,214 | 180,825 | 34,642 | 61.8 | 431,873 | 128,503 | 242,734 |

(Table continued on next left-hand page)

Railway Age—April 14, 1945



MORE Mileage FROM EVERY TON of COAL

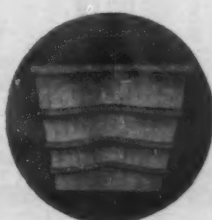
● Because the railroads have first to haul every ton of coal their locomotives burn, it is doubly important these days that coal be utilized most efficiently and economically.

Experience has proved that maximum production of steam from a ton

of coal is secured only when the locomotive firebox is equipped with a complete brick arch.

Consequently from the standpoint of fuel cost alone, it is unprofitable to operate any locomotive without a complete arch.

**HARBISON-WALKER
REFRACTORIES CO.**
Refractories Specialists



AMERICAN ARCH CO. INC.
60 East 42nd Street, New York 17, N. Y.
Locomotive Combustion Specialists

REVENUES AND EXPENSES OF RAILWAYS

Month of February and Two Months of Calendar Year 1945.

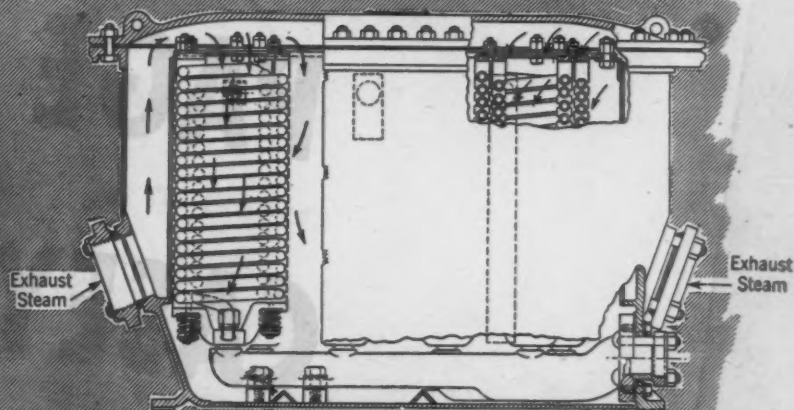
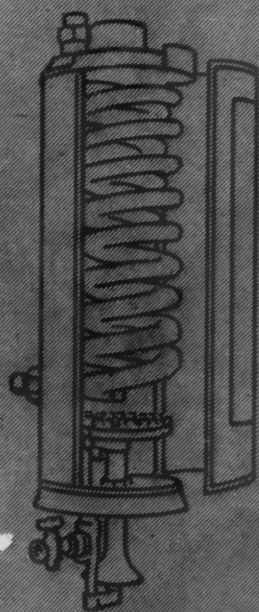
| Name of road | Av. mileage operated during period | Operating revenues | | | Operating expenses | | | Operating ratio | Net from railway operation | Net railway operating income | | | | |
|--|------------------------------------|--------------------|-------------|--------------------|-----------------------------------|-------------|-----------|-----------------|----------------------------|------------------------------|-------------|----------------------|-------------|-------------|
| | | Freight | Passenger | Total (inc. misc.) | Maintenance of way and structures | Equip-ment | Traffic | | | Trans- portation | Total | Railway tax accruals | 1945 | 1944 |
| Chicago, Milwaukee, St. Paul & Pacific | 10,722 | \$13,704,484 | \$2,217,875 | \$15,922,359 | \$2,462,849 | \$2,977,207 | \$277,173 | \$6,120,863 | \$12,492,150 | 71.2 | \$5,042,813 | \$2,496,000 | \$2,492,516 | \$2,295,296 |
| Chicago, Milwaukee, St. Paul & Pacific | 1,722 | 28,950,825 | 4,646,350 | 33,597,175 | 4,813,009 | 6,191,831 | 554,980 | 12,822,737 | 25,778,226 | 69.9 | 11,102,543 | 5,751,000 | 5,031,051 | 5,235,484 |
| Chicago, Rock Island & Pacific | 7,749 | 11,121,771 | 3,015,697 | 14,137,468 | 1,800,530 | 2,123,940 | 348,337 | 4,404,250 | 9,733,218 | 60.8 | 5,962,802 | 3,222,333 | 3,817,716 | 2,455,532 |
| Chicago, Rock Island & Pacific | 7,749 | 22,851,777 | 6,343,373 | 29,195,150 | 3,623,488 | 4,447,036 | 695,276 | 9,241,489 | 19,197,822 | 61.0 | 12,273,258 | 7,051,469 | 4,193,838 | 4,557,674 |
| Chicago, St. Paul, Minneapolis & Omaha | 1,617 | 1,595,466 | 325,795 | 2,021,261 | 292,908 | 318,559 | 40,329 | 898,911 | 1,626,066 | 77.8 | 463,877 | 165,661 | 248,759 | 300,530 |
| Clinchfield | 1,617 | 3,231,729 | 659,066 | 3,890,795 | 4,245,865 | 644,171 | 81,487 | 1,873,435 | 3,349,820 | 78.8 | 896,045 | 313,392 | 462,470 | 612,975 |
| Clinchfield | 302 | 1,208,244 | 9,099 | 1,217,343 | 76,071 | 183,847 | 23,181 | 264,778 | 657,233 | 46.3 | 1,298,411 | 131,664 | 533,598 | 562,599 |
| Clinchfield | 302 | 2,455,635 | 19,334 | 2,474,969 | 164,827 | 382,531 | 44,985 | 559,277 | 1,192,747 | 47.9 | 1,298,411 | 264,449 | 1,069,656 | 1,142,561 |
| Colorado & Southern | 748 | 817,019 | 237,848 | 1,054,867 | 168,717 | 194,107 | 16,870 | 378,319 | 804,828 | 69.8 | 348,910 | 115,966 | 146,279 | 276,761 |
| Colorado & Southern | 748 | 1,652,539 | 511,516 | 2,164,055 | 338,707 | 390,192 | 33,705 | 779,316 | 1,657,271 | 70.1 | 708,508 | 259,023 | 322,658 | 506,101 |
| Fort Worth & Denver City | 804 | 745,636 | 371,770 | 1,117,406 | 291,284 | 178,737 | 25,084 | 313,534 | 866,279 | 71.3 | 348,650 | 147,419 | 166,021 | 276,271 |
| Fort Worth & Denver City | 804 | 1,418,039 | 774,537 | 2,192,576 | 629,326 | 364,258 | 51,407 | 645,705 | 1,808,506 | 75.2 | 597,675 | 264,420 | 282,136 | 545,776 |
| Colorado & Wyoming | 42 | 77,375 | ..... | 77,375 | 11,502 | 19,522 | 706 | 52,438 | 88,580 | 70.5 | 36,889 | 19,712 | 16,900 | 20,644 |
| Colorado & Wyoming | 42 | 165,150 | ..... | 165,150 | 27,606 | 38,236 | 1,381 | 107,866 | 177,937 | 65.2 | 94,669 | 48,564 | 45,648 | 43,793 |
| Columbus & Greenville | 168 | 122,983 | 6,390 | 129,373 | 26,338 | 18,529 | 4,209 | 43,859 | 107,982 | 78.6 | 29,317 | 12,066 | 17,428 | 15,518 |
| Columbus & Greenville | 168 | 277,621 | 16,448 | 294,069 | 64,455 | 37,683 | 8,402 | 96,203 | 235,576 | 75.8 | 75,238 | 37,715 | 38,610 | 26,493 |
| Delaware & Hudson | 846 | 3,228,774 | 184,040 | 3,412,814 | 431,796 | 1,024,295 | 45,293 | 1,476,211 | 3,092,923 | 86.6 | 478,457 | 222,444 | 238,789 | 782,374 |
| Delaware & Hudson | 846 | 9,059,372 | 353,236 | 9,412,608 | 936,569 | 2,137,387 | 92,167 | 2,963,622 | 6,369,611 | 85.0 | 1,124,739 | 552,298 | 548,386 | 1,946,325 |
| Delaware, Lackawanna & Western | 973 | 4,099,840 | 813,531 | 4,913,371 | 623,054 | 1,061,344 | 113,705 | 2,234,892 | 4,764,062 | 87.9 | 658,421 | 513,000 | 3,220 | 601,473 |
| Delaware, Lackawanna & Western | 973 | 8,248,588 | 1,700,350 | 9,948,938 | 1,451,425 | 2,131,798 | 223,622 | 5,671,215 | 9,853,380 | 89.2 | 1,187,927 | 1,038,000 | 153,323 | 1,171,405 |
| Denver & Rio Grande Western | 2,386 | 4,481,472 | 707,850 | 5,189,322 | 603,426 | 1,087,614 | 93,510 | 1,640,921 | 3,605,053 | 66.8 | 1,793,672 | 655,145 | 991,528 | 888,359 |
| Denver & Rio Grande Western | 2,386 | 9,070,158 | 1,343,173 | 10,413,331 | 1,239,252 | 2,270,841 | 195,775 | 2,388,553 | 7,470,358 | 68.8 | 3,386,408 | 1,169,044 | 2,004,192 | 1,993,378 |
| Denver & Salt Lake | 232 | 223,574 | 8,441 | 232,015 | 40,752 | 51,344 | 3,303 | 86,458 | 134,418 | 80.3 | 46,430 | 29,315 | 17,288 | 49,911 |
| Denver & Salt Lake | 232 | 474,065 | 17,886 | 491,951 | 81,449 | 105,696 | 6,757 | 176,627 | 394,934 | 78.4 | 115,561 | 60,038 | 164,055 | 161,987 |
| Detroit & Mackinac | 230 | 50,997 | 9,914 | 60,911 | 12,868 | 15,599 | 895 | 29,621 | 62,750 | 92.0 | 5,423 | 4,454 | 1,957 | —6,282 |
| Detroit & Mackinac | 230 | 108,451 | 21,581 | 129,032 | 26,603 | 33,845 | 1,740 | 62,975 | 133,201 | 91.6 | 12,178 | 8,823 | 1,373 | —3,910 |
| Detroit & Toledo Shore Line | 50 | 397,896 | ..... | 397,896 | 400,193 | 27,525 | 10,530 | 103,740 | 178,834 | 44.7 | 221,359 | 91,392 | 61,055 | 67,365 |
| Detroit & Toledo Shore Line | 50 | 807,007 | ..... | 807,007 | 810,545 | 54,365 | 20,404 | 212,117 | 436,552 | 45.0 | 445,993 | 195,487 | 123,920 | 133,479 |
| Detroit, Toledo & Ironton | 464 | 979,150 | 1,213 | 980,363 | 92,006 | 122,209 | 14,758 | 239,111 | 494,768 | 49.3 | 508,812 | 221,147 | 277,020 | 219,887 |
| Detroit, Toledo & Ironton | 464 | 1,859,388 | 2,510 | 1,861,900 | 179,903 | 245,316 | 30,184 | 470,227 | 978,903 | 51.2 | 932,809 | 411,530 | 510,021 | 494,268 |
| Duluth, Missabe & Iron Range | 546 | 180,625 | 5,826 | 186,451 | 358,894 | 544,227 | 5,137 | 269,012 | 1,220,308 | 57.8 | 1,009,338 | 63,023 | 1,042,475 | 1,011,691 |
| Duluth, Missabe & Iron Range | 546 | 283,575 | 10,684 | 294,259 | 618,118 | 1,098,586 | 9,808 | 536,672 | 2,352,240 | 67.3 | 2,003,112 | 124,171 | 2,086,436 | 2,030,541 |
| Duluth, Winnipeg & Pacific | 175 | 268,000 | 1,800 | 269,800 | 47,179 | 32,713 | 2,394 | 117,744 | 203,997 | 74.2 | 71,103 | 20,612 | 13,414 | 49,522 |
| Duluth, Winnipeg & Pacific | 175 | 482,000 | 4,000 | 486,000 | 78,899 | 63,375 | 4,780 | 217,469 | 372,935 | 75.2 | 123,165 | 38,389 | 15,974 | 68,120 |
| Elgin, Joliet & Eastern | 392 | 2,615,882 | 48 | 2,615,930 | 224,103 | 753,874 | 16,764 | 1,023,159 | 2,081,581 | 70.0 | 891,027 | 403,941 | 341,693 | 271,532 |
| Elgin, Joliet & Eastern | 392 | 5,408,494 | 131 | 5,408,625 | 457,982 | 1,524,550 | 34,282 | 2,128,678 | 4,276,387 | 69.6 | 1,870,535 | 865,230 | 811,094 | 555,793 |
| Erie | 2,243 | 9,712,691 | 927,741 | 10,640,432 | 1,121,053 | 2,164,037 | 229,799 | 5,019,403 | 8,979,363 | 79.2 | 2,361,152 | 736,743 | 913,881 | 1,435,353 |
| Erie | 2,243 | 19,843,832 | 1,900,682 | 21,744,514 | 2,336,127 | 4,498,633 | 467,080 | 10,237,988 | 18,435,080 | 79.5 | 4,766,653 | 1,794,932 | 1,718,525 | 2,650,512 |
| Florida East Coast | 582 | 1,355,432 | 1,21,971 | 1,477,403 | 266,828 | 311,443 | 55,294 | 833,579 | 1,596,437 | 51.7 | 1,493,398 | 636,864 | 736,513 | 1,440,514 |
| Florida East Coast | 582 | 3,000,533 | 2,584,545 | 5,585,078 | 615,068 | 638,079 | 109,570 | 1,691,119 | 3,322,370 | 54.5 | 2,768,924 | 1,043,239 | 1,509,822 | 2,057,807 |
| Georgia Railroad | 328 | 559,274 | 138,237 | 697,511 | 118,232 | 118,260 | 22,091 | 307,068 | 587,704 | 79.7 | 150,127 | 31,523 | 114,188 | 212,293 |
| Georgia Railroad | 328 | 1,277,810 | 283,537 | 1,561,347 | 1,644,485 | 260,671 | 44,481 | 651,225 | 1,244,935 | 73.9 | 429,550 | 65,169 | 344,805 | 433,602 |
| Georgia & Florida | 408 | 177,142 | 4,796 | 181,938 | 45,575 | 25,624 | 11,139 | 63,006 | 135,069 | 82.1 | 33,320 | 10,664 | 9,748 | 19,959 |
| Georgia & Florida | 408 | 366,112 | 10,503 | 376,615 | 97,805 | 53,677 | 21,704 | 131,351 | 300,025 | 83.1 | 65,194 | 21,683 | 21,026 | 52,240 |
| Grand Trunk Western | 1,026 | 2,414,000 | 306,000 | 2,720,000 | 473,154 | 513,949 | 36,787 | 1,176,878 | 2,306,654 | 79.0 | 615,346 | 193,290 | 410,177 | 458,055 |
| Grand Trunk Western | 1,026 | 4,959,000 | 634,000 | 5,593,000 | 940,970 | 1,047,174 | 73,760 | 2,385,748 | 4,665,487 | 78.1 | 1,305,513 | 412,437 | 856,778 | 948,892 |
| Canadian National Lines in New England | 172 | 112,600 | 9,000 | 121,600 | 67,276 | 27,157 | 2,287 | 103,054 | 226,479 | 155.2 | 20,579 | 21,189 | 133,407 | —90,962 |
| Canadian National Lines in New England | 172 | 223,500 | 19,200 | 242,700 | 110,736 | 56,437 | 4,525 | 208,700 | 430,775 | 144.8 | 133,275 | 42,378 | 235,887 | —80,625 |
| Great Northern | 8,371 | 10,725,375 | 1,331,193 | 12,056,568 | 2,255,160 | 3,323,639 | 231,542 | 4,188,140 | 10,327,845 | 79.1 | 2,734,506 | 1,708,492 | 1,191,481 | 1,693,259 |
| Great Northern | 8,371 | 22,663,885 | 2,756,623 | 25,420,508 | 4,643,268 | 6,443,380 | 480,575 | 8,470,875 | 21,224,859 | 77.3 | 6,230,172 | 3,862,738 | 2,528,831 | 2,999,906 |
| Green Bay & Western | 233 | 207,783 | 436 | 208,219 | 51,012 | 216,492 | 8,012 | 70,021 | 159,117 | 73.4 | 32,137 | 32,137 | 19,011 | 47,491 |
| Green Bay & Western | 233 | 438,607 | 924 | 439,531 | 101,459 | 43,010 | 16,828 | 143,974 | 332,523 | 73.1 | 122,327 | 64,221 | 47,085 | 88,480 |
| Gulf & Ship Island | 259 | 170,589 | 49,928 | 220,517 | 47,260 | 33,452 | 2,744 | 99,523 | 192,276 | 77.4 | 56,244 | 18,564 | 23,479 | 113,177 |
| Gulf & Ship Island | 259 | 350,339 | 82,486 | 432,825 | 95,619 | 60,643 | 5,526 | 196,188 | 377,536 | 77.9 | 107,362 | 37,545 | 41,509 | 87,916 |

(Table continued on second left-hand page)

Railway Age—April 14, 1945

1945
 Gulf & Ship Island Feb. 2nd
 259
 170,580
 350,339
 49,928
 85,486
 248,520
 484,898
 47,260
 95,619
 33,452
 60,643
 2,744
 5,526
 99,523
 196,188
 192,276
 377,536
 77.4
 77.9
 56,244
 107,362
 18,564
 37,343
 23,479
 41,509
 113,177
 87,916

Coils..



Elesco Feedwater Heaters

The Superheater Company
New York Chicago

Canada:

The Superheater Company, Limited, Montreal
Representative of American Throttle Company, Inc.

when used in the design of a feedwater heater that provides for *free movement* of coils . . . have proved by experience to be the solution for freeing the heat exchange surfaces of scale.

Elesco "coil type" feedwater heaters have demonstrated this feature. They have delivered feedwater to the boiler at temperatures in close proximity to the temperature of the exhaust steam in the heater body . . . and they have done it from shopping to shopping without servicing.

The closed system is, of course, the simplest and requires the least maintenance. Many in service are daily proving this statement.

A-1711

Superheaters • Superheater Pyrometers • Exhaust Steam Injectors • Steam Dryers • Feed Water Heaters • American Throttles

IT'S A GREAT NEW DAY FOR RAILROADING

PAGE CASEY JONES

and find out what he would have thought
about the safety and comfort
of driving a
General Motors locomotive.

GENERAL MOTORS
LOCOMOTIVES

IT'S A GREAT NEW DAY FOR RAILROADING

Full vision ahead and on either side
for a clear view of
tracks and signals—
no steam, smoke or cinders
to obstruct sight.



He might not believe you.
But he could be shown.

ON TO FINAL VICTORY ★ BUY MORE WAR BONDS

ELECTRO-MOTIVE DIVISION

GENERAL MOTORS CORPORATION

LA GRANGE, ILL.

REVENUES AND EXPENSES OF RAILWAYS

Month of February and Two Months of Calendar Year 1945.

| Name of road | Av. mileage operated during period | Operating revenues | | | Operating expenses | | | Operating ratio | Net from railway operation | Net railway operating income | |
|--|------------------------------------|--------------------|-----------|--------------------|-----------------------------------|------------|----------|-----------------|----------------------------|------------------------------|-----------|
| | | Freight | Passenger | Total (inc. misc.) | Maintenance of way and structures | Equip-ment | Traffic | | | Trans- portation | Total | Railway tax accruals | 1945 |
| Gulf, Mobile & Ohio | Feb. 1,942 | \$2,719,070 | \$163,728 | \$2,973,889 | \$465,758 | \$488,155 | \$69,369 | \$785,003 | \$1,953,286 | \$580,558 | \$334,309 |
| | 2 mos. | 5,422,254 | 345,691 | 5,767,945 | 946,524 | 1,011,976 | 171,909 | 1,626,316 | 4,098,418 | 1,937,811 | 647,262 |
| Illinois Central | Feb. 4,823 | 13,744,155 | 2,320,494 | 17,158,249 | 2,138,276 | 3,112,632 | 214,976 | 4,910,483 | 10,087,436 | 3,929,539 | 2,185,334 |
| | 2 mos. | 27,948,688 | 5,031,546 | 35,133,279 | 4,437,756 | 6,375,453 | 434,466 | 10,342,962 | 22,875,093 | 7,850,037 | 4,310,745 |
| Yazoo & Mississippi Valley | Feb. 1,524 | 1,776,338 | 263,324 | 2,209,477 | 520,929 | 308,993 | 36,979 | 802,488 | 1,765,471 | 244,684 | 135,422 |
| | 2 mos. | 3,935,647 | 669,532 | 4,605,179 | 1,029,033 | 610,695 | 74,804 | 1,698,281 | 3,604,651 | 700,951 | 463,964 |
| Illinois Central System | Feb. 6,347 | 15,520,493 | 2,583,818 | 19,367,721 | 2,659,205 | 3,421,625 | 251,955 | 5,713,554 | 12,764,909 | 4,179,375 | 2,325,669 |
| | 2 mos. | 31,884,335 | 5,701,078 | 40,048,724 | 5,466,789 | 6,986,148 | 509,270 | 12,041,243 | 26,479,744 | 8,561,292 | 4,784,535 |
| Illinois Terminal | Feb. 476 | 679,089 | 155,574 | 904,051 | 96,979 | 110,008 | 18,699 | 281,124 | 333,855 | 237,386 | 118,104 |
| | 2 mos. | 1,424,765 | 324,351 | 1,894,226 | 195,454 | 227,773 | 39,771 | 592,125 | 1,108,275 | 785,951 | 237,699 |
| Kansas City Southern | Feb. 890 | 2,730,670 | 270,520 | 3,208,009 | 386,999 | 444,430 | 63,775 | 802,365 | 1,815,985 | 675,000 | 562,544 |
| | 2 mos. | 5,481,741 | 568,924 | 6,453,483 | 807,579 | 961,334 | 129,095 | 1,699,751 | 3,844,558 | 1,150,000 | 1,109,809 |
| Kansas, Oklahoma & Gulf | Feb. 328 | 298,510 | 1,503 | 303,085 | 31,896 | 20,394 | 9,432 | 73,313 | 145,810 | 65,026 | 73,612 |
| | 2 mos. | 642,849 | 3,195 | 653,087 | 70,499 | 48,426 | 19,460 | 154,221 | 314,043 | 146,606 | 150,474 |
| Lake Superior & Ishpeming | Feb. 156 | 36,793 | 1,145 | 39,201 | 24,988 | 36,197 | 693 | 29,707 | 99,360 | 23,366 | -74,647 |
| | 2 mos. | 74,671 | 260 | 80,677 | 52,743 | 76,145 | 1,439 | 60,334 | 206,350 | 46,923 | -155,865 |
| Lehigh & Hudson River | Feb. 96 | 297,995 | ..... | 298,596 | 24,919 | 46,488 | 5,475 | 98,636 | 182,222 | 48,308 | 29,395 |
| | 2 mos. | 537,852 | 13 | 539,144 | 50,499 | 86,312 | 10,999 | 189,478 | 351,150 | 80,648 | 46,189 |
| Lehigh & New England | Feb. 190 | 414,445 | ..... | 417,317 | 40,629 | 130,761 | 8,778 | 151,634 | 313,270 | 66,067 | 49,820 |
| | 2 mos. | 816,460 | ..... | 822,109 | 85,263 | 250,652 | 16,369 | 302,798 | 696,409 | 74,052 | 89,456 |
| Lehigh Valley | Feb. 1,260 | 5,426,650 | 550,072 | 6,395,567 | 1,146,271 | 1,352,789 | 118,367 | 3,042,805 | 5,889,150 | 116,374 | 29,395 |
| | 2 mos. | 10,741,383 | 1,174,220 | 12,848,781 | 2,059,763 | 2,712,238 | 239,440 | 6,225,832 | 11,611,515 | 187,994 | 52,901 |
| Louisiana & Arkansas | Feb. 834 | 1,692,684 | 152,815 | 1,897,469 | 288,507 | 200,300 | 34,338 | 380,591 | 1,611,819 | 603,976 | 282,016 |
| | 2 mos. | 3,236,857 | 294,680 | 3,640,454 | 575,716 | 392,056 | 69,538 | 766,740 | 1,919,905 | 1,109,266 | 482,669 |
| Louisville & Nashville | Feb. 4,756 | 13,168,310 | 3,333,287 | 17,374,846 | 1,748,648 | 2,803,713 | 212,180 | 5,302,998 | 10,561,674 | 5,049,532 | 2,137,482 |
| | 2 mos. | 26,977,030 | 6,779,672 | 35,747,273 | 3,665,839 | 5,893,106 | 413,515 | 10,968,098 | 22,019,386 | 10,107,384 | 4,306,211 |
| Maine Central | Feb. 988 | 1,306,716 | 267,264 | 1,672,315 | 300,176 | 302,552 | 13,532 | 1,364,996 | 1,364,996 | 95,154 | 149,148 |
| | 2 mos. | 2,668,327 | 470,718 | 3,340,733 | 625,983 | 633,509 | 27,592 | 1,366,492 | 2,759,603 | 227,230 | 233,142 |
| Midland Valley | Feb. 334 | 126,335 | 35 | 128,643 | 19,456 | 13,225 | 2,309 | 39,420 | 78,717 | 14,878 | 27,423 |
| | 2 mos. | 266,441 | 73 | 271,687 | 39,173 | 27,903 | 4,982 | 84,985 | 166,091 | 42,835 | 45,360 |
| Minneapolis & St. Louis | Feb. 1,408 | 1,110,821 | 29,487 | 1,182,342 | 211,101 | 193,734 | 63,006 | 367,830 | 887,685 | 186,375 | 63,178 |
| | 2 mos. | 2,282,080 | 59,633 | 2,434,464 | 420,461 | 388,276 | 130,420 | 794,900 | 1,846,520 | 347,243 | 257,044 |
| Minneapolis, St. Paul & Sault Ste. Marie | Feb. 3,224 | 1,245,032 | 141,511 | 1,519,295 | 303,956 | 388,226 | 36,799 | 729,643 | 1,527,057 | 129,753 | -4,527 |
| | 2 mos. | 2,720,650 | 291,532 | 3,296,844 | 612,227 | 830,971 | 75,463 | 1,587,900 | 3,240,505 | 56,339 | -50,458 |
| Duluth, South Shore & Atlantic | Feb. 550 | 265,787 | 20,285 | 304,368 | 58,718 | 60,657 | 10,480 | 137,417 | 275,007 | 20,449 | 5,890 |
| | 2 mos. | 529,899 | 41,956 | 609,311 | 111,304 | 123,698 | 21,441 | 280,664 | 553,112 | 56,199 | 10,401 |
| Spokane International | Feb. 152 | 156,669 | 5,441 | 171,785 | 44,799 | 13,492 | 3,199 | 40,237 | 108,698 | 63,087 | 23,166 |
| | 2 mos. | 319,710 | 10,247 | 333,360 | 89,160 | 27,395 | 6,514 | 84,328 | 221,549 | 64,298 | 46,756 |
| Mississippi Central | Feb. 158 | 158,323 | 3,277 | 164,945 | 33,726 | 18,255 | 9,555 | 40,390 | 107,663 | 20,079 | 25,471 |
| | 2 mos. | 312,290 | 5,305 | 325,091 | 62,686 | 37,183 | 18,710 | 80,644 | 212,693 | 39,510 | 50,978 |
| Missouri & Arkansas | Feb. 365 | 246,327 | 2,216 | 255,246 | 59,451 | 23,004 | 7,900 | 83,656 | 180,860 | 23,235 | 19,943 |
| | 2 mos. | 486,391 | 4,818 | 491,579 | 121,305 | 41,362 | 16,158 | 171,994 | 365,636 | 35,226 | 24,206 |
| Missouri-Illinois | Feb. 172 | 238,091 | 357 | 239,537 | 32,315 | 35,112 | 4,700 | 61,087 | 119,160 | 82,023 | 35,049 |
| | 2 mos. | 517,799 | 933 | 526,939 | 73,898 | 74,424 | 9,518 | 129,826 | 302,019 | 147,090 | 69,647 |
| Missouri-Kansas-Texas Lines | Feb. 3,253 | 5,361,861 | 937,232 | 6,856,129 | 1,421,708 | 1,848,047 | 148,571 | 1,980,311 | 4,610,650 | 1,185,652 | 703,481 |
| | 2 mos. | 11,018,951 | 1,936,497 | 14,074,081 | 2,957,406 | 3,743,801 | 289,114 | 4,111,975 | 9,543,552 | 2,409,761 | 1,364,164 |
| Missouri Pacific | Feb. 7,082 | 14,002,295 | 2,820,841 | 18,065,278 | 1,698,914 | 2,590,504 | 292,476 | 4,889,094 | 9,985,864 | 4,459,784 | 2,973,626 |
| | 2 mos. | 28,643,664 | 6,218,113 | 37,461,406 | 3,622,808 | 5,319,545 | 600,668 | 10,427,321 | 21,063,428 | 9,158,203 | 5,911,664 |
| Gulf Coast Lines | Feb. 1,734 | 2,257,739 | 287,184 | 3,683,529 | 606,150 | 354,992 | 52,648 | 874,030 | 1,970,711 | ..... | 490,146 |
| | 2 mos. | 4,526,029 | 611,564 | 8,140,706 | 1,261,351 | 716,040 | 110,136 | 1,890,520 | 4,160,446 | ..... | 1,147,290 |
| International-Great Northern | Feb. 1,110 | 1,599,003 | 2,192,566 | 3,791,569 | 441,754 | 316,354 | 37,691 | 779,514 | 1,650,748 | 126,502 | 277,013 |
| | 2 mos. | 3,344,402 | 4,688,529 | 9,021,197 | 902,197 | 671,093 | 75,198 | 1,578,379 | 3,419,347 | 395,169 | 594,538 |
| Monongahela | Feb. 170 | 423,344 | 2,103 | 428,409 | 60,196 | 41,350 | 640 | 131,182 | 237,247 | 91,578 | 29,048 |
| | 2 mos. | 908,522 | 4,632 | 920,696 | 121,309 | 82,143 | 1,270 | 283,116 | 424,788 | 183,953 | 94,570 |

(Table continued on next left-hand page)

"AP" DECELOSTAT . . .

The Mechanical-Pneumatic Wheel Slip Control



for { Functional Simplicity
Simplified Installation
Ease of Maintenance



SOFTENS THE BRAKE
WHEN WHEEL SLIP IMPENDS.

Functional Simplicity . . . Single rotating element, operating on ball bearings—constantly reflects wheel performance at the scene of action.

Simplified Installation . . . apparatus confined entirely to the truck. On-the-spot performance regulates braking pressure promptly when wheel retardation exceeds predetermined rate.

Ease of Maintenance . . . No connections between car body and truck means fewer connections to inspect and maintain.

Westinghouse Air Brake Company

Wilmerding, Pa.

REVENUES AND EXPENSES OF RAILWAYS

Month of February and Two Months of Calendar Year 1945.

| Name of road | Av. mileage operated during period | Operating revenues | | | Operating expenses | | | Operating ratio | Net from railway operation | Railway tax accruals | | Net railway operating income | |
|-------------------------------------|------------------------------------|--------------------|------------|--------------------|-----------------------------------|------------|-----------|-----------------|----------------------------|----------------------|-----------|------------------------------|------------|
| | | Freight | Passenger | Total (inc. misc.) | Maintenance of way and structures | Equip-ment | Traffic | | | 1945 | 1944 | 1945 | 1944 |
| Montour | 51 | \$181,256 | ..... | \$181,032 | \$15,134 | \$52,110 | \$997 | 82.37 | \$32,267 | \$33,673 | \$30,245 | \$50,748 | \$50,748 |
| Nashville, Chattanooga & St. Louis | 1,071 | 382,221 | ..... | 383,908 | 28,415 | 107,164 | 2,052 | 79.65 | 78,529 | 75,453 | 70,334 | 99,523 | 99,523 |
| | 1,071 | 2,549,200 | 471,730 | 3,245,150 | 468,537 | 635,511 | 87,831 | 70.6 | 933,361 | 442,837 | 509,134 | 973,547 | 973,547 |
| | 1,071 | 5,156,834 | 987,314 | 6,616,459 | 988,157 | 1,328,989 | 173,701 | 72.4 | 1,823,487 | 846,854 | 973,547 | 966,299 | 966,299 |
| New York Central | 10,749 | 33,249,306 | 11,465,380 | 49,983,526 | 7,613,342 | 10,455,673 | 735,666 | 83.8 | 8,096,893 | 4,294,376 | 2,466,396 | 4,924,899 | 4,924,899 |
| | 10,749 | 68,658,514 | 24,972,412 | 93,630,926 | 15,766,480 | 21,356,985 | 1,474,941 | 83.5 | 17,093,916 | 8,723,538 | 4,924,899 | 9,931,945 | 9,931,945 |
| | 229 | 2,072,412 | 97,124 | 2,169,536 | 292,286 | 359,122 | 85,226 | 83.5 | 599,216 | 325,538 | 260,369 | 320,802 | 320,802 |
| | 229 | 4,352,676 | 212,326 | 4,565,002 | 608,561 | 1,174,163 | 85,226 | 83.5 | 1,196,573 | 639,089 | 516,679 | 829,160 | 829,160 |
| New York, Chicago & St. Louis | 1,687 | 7,352,576 | 234,327 | 7,733,079 | 930,889 | 1,259,901 | 162,860 | 64.5 | 2,741,793 | 1,215,731 | 1,083,243 | 953,879 | 953,879 |
| | 1,687 | 14,686,344 | 570,349 | 15,558,624 | 1,926,900 | 2,594,513 | 315,682 | 66.2 | 5,288,516 | 1,983,576 | 2,419,899 | 1,828,333 | 1,828,333 |
| | 1,838 | 6,770,441 | 5,466,615 | 13,308,772 | 1,686,444 | 2,239,720 | 171,788 | 75.4 | 3,273,147 | 1,270,000 | 889,633 | 1,555,177 | 1,555,177 |
| | 1,838 | 13,784,517 | 11,200,189 | 27,196,536 | 3,423,090 | 4,576,079 | 308,981 | 75.3 | 6,716,740 | 2,490,000 | 2,043,297 | 3,398,691 | 3,398,691 |
| New York Connecting | 21 | 166,309 | ..... | 190,534 | 45,413 | 25,645 | ..... | 67.7 | 61,463 | 102,158 | 65,190 | 160,468 | 160,468 |
| | 21 | 386,695 | ..... | 400,802 | 95,116 | 135,264 | ..... | 60.0 | 169,178 | 196,040 | 257,134 | 391,607 | 391,607 |
| | 548 | 972,440 | 2,966 | 975,406 | 102,232 | 150,620 | 22,883 | 132.4 | 171,978 | 84,416 | 34,265 | 84,416 | 84,416 |
| | 548 | 972,440 | 6,348 | 1,094,323 | 197,055 | 298,638 | 44,895 | 132.7 | 357,498 | 84,943 | 53,234 | 84,943 | 84,943 |
| New York, Susquehanna & Western | 120 | 342,502 | 36,427 | 390,020 | 33,317 | 34,780 | 4,552 | 65.0 | 136,679 | 45,598 | 39,032 | 112,477 | 112,477 |
| | 120 | 660,665 | 77,267 | 737,932 | 67,926 | 69,858 | 8,816 | 67.6 | 246,143 | 92,776 | 52,070 | 186,288 | 186,288 |
| | 2,154 | 11,819,975 | 966,808 | 13,135,959 | 1,405,195 | 2,554,593 | 174,649 | 57.4 | 5,593,110 | 4,246,649 | 2,081,750 | 1,848,655 | 1,848,655 |
| | 2,154 | 23,984,486 | 2,199,935 | 27,037,848 | 2,887,417 | 5,156,248 | 347,259 | 56.7 | 11,719,287 | 8,983,997 | 4,167,192 | 3,917,623 | 3,917,623 |
| Norfolk | 727 | 556,936 | 19,949 | 594,397 | 145,209 | 77,673 | 30,247 | 82.3 | 105,008 | 38,938 | 36,669 | 42,084 | 42,084 |
| | 727 | 1,232,387 | 1,232,387 | 2,464,774 | 1,232,387 | 1,232,387 | 60,456 | 82.3 | 209,573 | 174,820 | 76,462 | 77,506 | 77,506 |
| | 6,867 | 8,670,170 | 1,653,923 | 11,324,093 | 1,653,923 | 2,513,271 | 183,880 | 73.1 | 2,651,573 | 1,563,087 | 1,581,662 | 1,706,121 | 1,706,121 |
| | 6,867 | 18,152,111 | 3,109,943 | 23,159,203 | 3,304,393 | 5,137,283 | 368,589 | 73.5 | 5,679,906 | 3,292,700 | 3,240,741 | 3,275,697 | 3,275,697 |
| Northwestern Pacific | 331 | 440,380 | 17,157 | 476,201 | 169,905 | 56,158 | 2,048 | 81.8 | 86,435 | 26,375 | 36,329 | 48,126 | 48,126 |
| | 331 | 948,250 | 34,780 | 1,024,109 | 328,780 | 114,754 | 5,049 | 78.7 | 218,092 | 51,906 | 36,905 | 38,246 | 38,246 |
| | 132 | 105,961 | 3 | 107,112 | 15,557 | 7,164 | 1,089 | 53.3 | 50,000 | 17,899 | 17,628 | 25,561 | 25,561 |
| | 132 | 230,735 | 3 | 232,977 | 34,250 | 13,585 | 2,301 | 50.1 | 116,177 | 47,408 | 41,222 | 55,537 | 55,537 |
| Oklahoma City-Ada-Atoka | 132 | 230,735 | 3 | 232,977 | 34,250 | 13,585 | 2,301 | 50.1 | 116,177 | 47,408 | 41,222 | 55,537 | 55,537 |
| Pennsylvania | 10,115 | 49,951,335 | 18,922,174 | 74,737,712 | 8,521,297 | 13,462,861 | 986,134 | 79.6 | 15,260,421 | 8,302,773 | 6,023,200 | 9,236,998 | 9,236,998 |
| | 10,115 | 98,406,271 | 40,631,799 | 151,021,373 | 18,360,449 | 28,322,436 | 1,989,218 | 81.5 | 27,994,466 | 17,069,847 | 9,396,073 | 16,966,958 | 16,966,958 |
| | 376 | 1,058,981 | 1,906,986 | 3,151,324 | 411,714 | 484,524 | 10,457 | 82.2 | 560,961 | 229,763 | 94,514 | 100,422 | 100,422 |
| | 376 | 2,129,591 | 3,947,631 | 6,437,615 | 960,040 | 1,006,729 | 20,458 | 84.1 | 1,026,344 | 471,346 | 171,471 | 173,004 | 173,004 |
| Pennsylvania-Reading Seashore Lines | 392 | 450,399 | 248,387 | 729,225 | 132,669 | 115,688 | 7,447 | 99.9 | 583 | 83,453 | 171,561 | 164,588 | 164,588 |
| | 392 | 852,819 | 518,730 | 1,371,549 | 285,026 | 331,009 | 14,628 | 105.3 | 74,906 | 166,614 | 426,234 | 388,590 | 388,590 |
| | 1,949 | 3,978,038 | 236,149 | 4,366,156 | 724,226 | 828,508 | 80,575 | 79.1 | 913,964 | 299,012 | 650,768 | 428,232 | 428,232 |
| | 1,949 | 7,970,353 | 520,324 | 8,804,306 | 1,467,855 | 1,708,144 | 159,084 | 79.7 | 1,784,164 | 684,883 | 1,070,166 | 738,228 | 738,228 |
| Pittsburg & Shawmut | 97 | 110,592 | ..... | 111,353 | 18,606 | 23,416 | 1,850 | 77.3 | 25,249 | 9,947 | 18,608 | 57,636 | 57,636 |
| | 97 | 226,181 | ..... | 227,711 | 35,985 | 46,063 | 3,452 | 75.6 | 53,515 | 19,930 | 39,965 | 80,881 | 80,881 |
| | 136 | 634,976 | ..... | 671,702 | 106,323 | 106,323 | 23,253 | 64.5 | 238,492 | 63,090 | 196,868 | 147,317 | 147,317 |
| | 136 | 1,264,717 | ..... | 1,301,297 | 161,924 | 216,150 | 46,819 | 66.1 | 465,276 | 125,348 | 394,672 | 285,308 | 285,308 |
| Pittsburg & West Virginia | 190 | 95,489 | ..... | 96,459 | 18,817 | 20,658 | 1,010 | 95.1 | 4,755 | 6,529 | 9,121 | 2,943 | 2,943 |
| | 190 | 194,735 | ..... | 196,404 | 39,113 | 44,417 | 2,110 | 99.2 | 1,580 | 13,438 | 26,114 | 1,290 | 1,290 |
| | 1,367 | 7,729,544 | 867,531 | 9,009,536 | 1,044,534 | 1,886,768 | 83,740 | 72.1 | 2,512,565 | 1,491,846 | 992,184 | 1,446,954 | 1,446,954 |
| | 1,367 | 15,648,211 | 1,759,424 | 18,214,381 | 2,207,766 | 3,853,139 | 171,290 | 73.4 | 4,845,590 | 2,700,005 | 2,084,516 | 2,774,461 | 2,774,461 |
| Richmond, Fredericksburg & Potomac | 118 | 1,581,900 | 1,081,398 | 2,902,119 | 20,678 | 334,544 | 14,304 | 51.6 | 1,405,997 | 1,074,659 | 173,398 | 277,679 | 277,679 |
| | 118 | 3,048,740 | 2,337,493 | 5,860,986 | 463,069 | 682,463 | 29,390 | 52.7 | 2,769,321 | 2,084,977 | 381,902 | 585,034 | 585,034 |
| | 407 | 230,425 | 56,886 | 348,758 | 60,202 | 90,232 | 11,981 | 113.5 | 47,238 | 26,941 | 74,419 | 33,791 | 33,791 |
| | 407 | 426,203 | 118,483 | 678,395 | 138,101 | 183,784 | 24,343 | 122.6 | 153,496 | 56,009 | 21,801 | 71,249 | 71,249 |
| St. Louis-San Francisco | 4,645 | 6,384,623 | 1,739,050 | 8,853,290 | 1,105,108 | 1,563,597 | 169,880 | 67.9 | 2,837,554 | 1,489,032 | 1,431,006 | 1,157,447 | 1,157,447 |
| | 4,645 | 13,486,392 | 3,511,704 | 17,475,671 | 2,324,259 | 3,274,259 | 342,460 | 68.2 | 5,881,271 | 3,167,857 | 2,843,930 | 2,816,556 | 2,816,556 |
| | 160 | 256,192 | 46,965 | 310,551 | 29,713 | 29,713 | 11,360 | 57.0 | 133,422 | 69,394 | 37,551 | 23,615 | 23,615 |
| | 160 | 506,326 | 76,492 | 600,030 | 64,635 | 63,012 | 22,057 | 61.9 | 228,427 | 121,303 | 56,964 | 85,677 | 85,677 |

(Table continued on next left-hand page)

23,615
 23,615
 56,964
 56,964
 121,303
 121,303
 228,427
 228,427
 61.9
 61.9
 371,603
 371,603
 206,764
 206,764
 22,057
 22,057
 11,360
 11,360
 5,935,374
 5,935,374
 12,594,400
 12,594,400
 177,129
 177,129
 3,274,259
 3,274,259
 2,853,280
 2,853,280
 29,713
 29,713
 64,635
 64,635
 8,475,671
 8,475,671
 310,551
 310,551
 600,030
 600,030
 76,492
 76,492
 506,326
 506,326
 13,486,392
 13,486,392
 4,646
 4,646
 160
 160
 2 mos.
 2 mos.
 2 mos.
 2 mos.
 St. Louis, San Francisco & Texas
 St. Louis, San Francisco & Texas
 1945



HSGI

Wear Resisting

PARTS

Railroad Acceptance

RAILROAD acceptance is the best possible testimony for HUNT-SPILLER *Air Furnace* GUN IRON. The prestige of the roads which have consistently used it for many years is proof that HSGI fulfills its claims. It *does* resist heat and wear better; it *does* maintain efficiency and economy for longer periods.

HSGI
 Reg. U. S. Trade Mark

Cylinder Bushings
 Cylinder Packing Rings
 Pistons or Piston Bull Rings
 Valve Bushings
 Valve Packing Rings
 Valve Bull Rings
 Crosshead Shoes
 Hub Liners
 Shoes and Wedges
 Floating Rod Bushings

Finished Parts

Dunbar Sectional Type Packing
 Duplex Sectional Type Packing
 for Cylinders and Valves
 (Duplex Springs for Above
 Sectional Packing)
 Cylinder Snap Rings
 Valve Rings, All Shapes
 Light Weight Valves
 Cylinder Liners and Pistons
 for Diesel Service

HUNT-SPILLER MFG. CORPORATION
 N. C. Raymond, President E. J. Fuller, Vice-Pres. & Gen. Mgr.

Office & Works
 383 Dorchester Ave. South Boston 27, Mass.
 Canadian Representative: Joseph Robb & Co., Ltd., 5575 Cole St. Paul Rd., Montreal, P. Q.
 Export Agent for Latin America:
 International Rwy. Supply Co., 30 Church Street, New York, N. Y.

Air Furnace **HUNT-SPILLER** **GUN IRON**

REVENUES AND EXPENSES OF RAILWAYS

Month of February and Two Months of Calendar Year 1945.

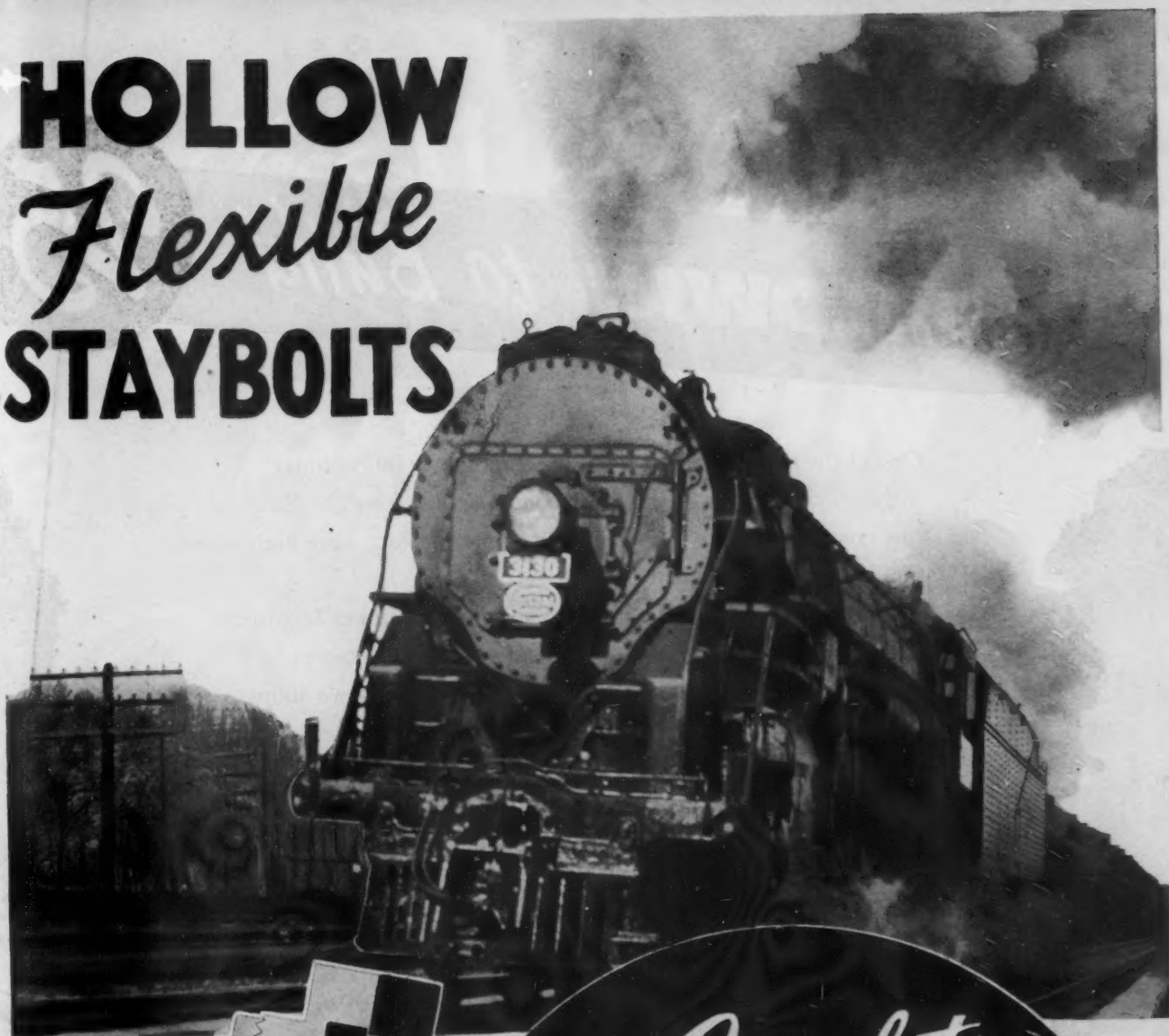
| Name of road | Av. mileage operated during period | Operating revenues | | | Operating expenses | | | Operating ratio | Net from railway operation | Net railway operating income | | | |
|---|------------------------------------|--------------------|------------|--------------------|--------------------|------------|------------------|-----------------|----------------------------|------------------------------|----------------------|-----------|-----------|
| | | Freight | Passenger | Total (inc. misc.) | Way and structures | Traffic | Trans- portation | | | Total | Railway tax accruals | 1945 | 1944 |
| St. Louis Southwestern Lines | 1,607 | \$5,483,718 | \$289,686 | \$5,930,967 | \$487,304 | \$104,856 | \$1,285,410 | \$2,589,727 | 43.7 | \$3,341,240 | \$2,124,688 | \$926,570 | \$753,208 |
| Seaboard Air Line | 1,607 | 11,218,569 | 616,421 | 12,153,017 | 1,096,422 | 207,998 | 2,659,545 | 5,447,545 | 44.8 | 6,703,472 | 4,257,889 | 1,849,680 | 1,384,551 |
| | 397 | 7,534,219 | 324,877 | 7,859,096 | 1,512,456 | 336,856 | 3,367,638 | 7,348,836 | 63.8 | 4,115,409 | 2,900,000 | 1,682,746 | 1,952,094 |
| | 4,173 | 15,079,638 | 6,899,168 | 23,517,993 | 2,933,999 | 477,034 | 6,948,408 | 14,887,721 | 63.3 | 8,630,272 | 4,223,000 | 3,470,487 | 3,849,404 |
| Southern Railway | 6,505 | 15,726,572 | 5,538,789 | 22,570,009 | 2,524,197 | 338,936 | 6,083,260 | 12,873,196 | 57.0 | 9,696,813 | 6,404,184 | 2,919,264 | 2,822,106 |
| Alabama Great Southern | 6,505 | 31,819,001 | 10,614,915 | 45,089,471 | 5,190,765 | 689,170 | 12,222,233 | 26,640,857 | 59.1 | 18,448,614 | 12,172,381 | 5,497,789 | 5,488,102 |
| | 315 | 1,214,923 | 457,563 | 1,791,705 | 183,494 | 305,082 | 531,304 | 1,093,171 | 61.0 | 698,534 | 497,846 | 145,403 | 200,161 |
| | 315 | 2,640,026 | 1,053,124 | 3,969,714 | 387,921 | 622,621 | 1,089,764 | 2,303,514 | 58.0 | 1,666,200 | 1,185,964 | 380,168 | 375,791 |
| Cincinnati, New Orleans & Texas Pacific | 337 | 2,166,801 | 602,056 | 2,935,783 | 308,330 | 649,948 | 727,663 | 1,818,666 | 61.9 | 1,117,117 | 788,185 | 396,470 | 458,626 |
| Georgia Southern & Florida | 337 | 4,405,830 | 1,198,819 | 5,959,215 | 634,221 | 1,341,455 | 1,536,788 | 3,799,082 | 63.8 | 2,160,133 | 1,515,193 | 778,310 | 800,917 |
| | 397 | 2,655,524 | 259,043 | 3,154,567 | 64,266 | 77,356 | 163,644 | 324,084 | 56.2 | 252,562 | 152,459 | 66,473 | 49,777 |
| | 397 | 561,263 | 494,706 | 1,167,641 | 137,563 | 148,232 | 332,722 | 659,317 | 56.5 | 508,324 | 302,567 | 136,668 | 108,857 |
| New Orleans & Northeastern | 204 | 779,005 | 248,551 | 1,070,241 | 120,966 | 112,917 | 264,812 | 542,440 | 50.7 | 527,801 | 322,538 | 119,941 | 84,950 |
| Southern Pacific | 204 | 1,695,818 | 486,822 | 2,305,939 | 251,967 | 243,272 | 502,945 | 1,124,714 | 48.8 | 1,181,225 | 767,960 | 274,991 | 156,580 |
| | 8,247 | 26,226,115 | 7,369,745 | 36,578,987 | 5,672,794 | 7,303,917 | 12,021,757 | 27,602,180 | 75.5 | 8,976,807 | 5,106,059 | 2,700,795 | 2,652,995 |
| | 8,247 | 54,352,274 | 15,838,387 | 77,033,788 | 11,353,061 | 15,187,649 | 25,068,136 | 57,041,763 | 74.0 | 19,992,025 | 11,663,354 | 5,653,984 | 6,299,329 |
| Texas & New Orleans | 4,333 | 7,312,399 | 1,906,387 | 9,819,137 | 1,323,693 | 1,406,109 | 2,663,443 | 5,912,017 | 60.2 | 3,907,120 | 2,404,100 | 1,028,432 | 1,441,165 |
| Spokane, Portland & Seattle | 4,333 | 15,214,090 | 3,959,547 | 20,365,638 | 2,824,065 | 2,892,571 | 5,599,159 | 12,386,356 | 60.8 | 7,979,282 | 4,823,694 | 2,146,252 | 2,978,874 |
| | 944 | 1,658,115 | 150,715 | 1,920,848 | 504,165 | 206,126 | 564,164 | 1,351,211 | 70.3 | 569,637 | 194,807 | 209,281 | —4,714 |
| | 944 | 3,554,915 | 327,121 | 4,118,792 | 981,497 | 431,642 | 1,246,287 | 2,821,137 | 68.5 | 1,297,655 | 420,685 | 542,189 | 26,705 |
| Tennessee Central | 286 | 269,794 | 19,530 | 305,549 | 59,563 | 6,922 | 113,217 | 251,555 | 82.3 | 53,994 | 9,101 | 29,679 | 24,084 |
| Texas & Pacific | 286 | 557,868 | 98,194 | 689,816 | 119,043 | 32,940 | 244,859 | 511,840 | 77.1 | 157,976 | 84,159 | 72,220 | 105,635 |
| | 1,884 | 4,453,718 | 1,383,400 | 6,361,265 | 782,794 | 878,098 | 1,513,705 | 3,532,997 | 55.5 | 2,828,268 | 1,957,502 | 654,266 | 563,321 |
| | 1,884 | 9,242,078 | 3,029,738 | 13,346,239 | 1,593,833 | 1,798,212 | 3,165,760 | 7,306,037 | 54.7 | 6,040,202 | 4,197,369 | 1,408,633 | 1,112,842 |
| Texas Mexican | 162 | 114,488 | 1,046 | 120,399 | 36,276 | 18,903 | 39,234 | 108,065 | 83.5 | 21,334 | 19,315 | —5,920 | 49,161 |
| Toledo, Peoria & Western | 162 | 259,194 | 1,665 | 260,859 | 13,626 | 35,861 | 89,234 | 301,061 | 105.3 | 15,187 | 38,992 | —68,570 | 92,081 |
| | 239 | 399,173 | 87 | 402,259 | 8,948 | 21,169 | 89,234 | 218,029 | 43.8 | 218,029 | 19,055 | 177,084 | 214,101 |
| | 239 | 821,093 | 3 | 827,023 | 72,496 | 46,044 | 177,706 | 372,033 | 45.0 | 454,990 | 39,101 | 374,687 | 439,147 |
| Union Pacific System | 9,781 | 27,583,861 | 6,140,371 | 36,724,094 | 4,367,271 | 7,511,666 | 10,612,683 | 25,056,077 | 68.2 | 11,668,017 | 8,416,627 | 2,425,918 | 3,195,874 |
| Utah | 9,781 | 56,805,579 | 13,344,041 | 76,502,145 | 8,957,578 | 1,203,450 | 22,375,134 | 51,690,288 | 67.6 | 24,811,837 | 17,878,264 | 5,720,123 | 5,558,338 |
| | 111 | 106,711 | ..... | 106,715 | 14,398 | 30,881 | 31,851 | 34,278 | 78.9 | 22,481 | 14,361 | 13,102 | 3,293 |
| | 111 | 224,752 | ..... | 224,846 | 28,944 | 68,169 | 66,665 | 173,783 | 77.3 | 51,063 | 31,208 | 30,159 | 28,602 |
| Virginian | 657 | 2,310,285 | 7,145 | 2,402,859 | 260,060 | 26,306 | 529,190 | 1,510,923 | 62.9 | 891,936 | 450,000 | 572,902 | 613,016 |
| Wabash | 657 | 4,851,730 | 15,465 | 5,041,894 | 531,801 | 1,340,966 | 1,103,319 | 3,144,755 | 62.4 | 1,897,139 | 981,310 | 1,152,510 | 1,234,620 |
| | 2,393 | 6,484,741 | 827,447 | 7,759,370 | 855,952 | 171,742 | 3,331,083 | 4,604,064 | 59.3 | 3,155,306 | 1,921,600 | 858,901 | 761,795 |
| | 2,393 | 12,834,468 | 1,707,768 | 15,423,026 | 1,724,305 | 356,881 | 5,084,749 | 9,637,450 | 62.5 | 5,785,576 | 3,506,375 | 1,564,246 | 1,508,636 |
| Ann Arbor | 294 | 457,014 | 6,006 | 470,961 | 50,846 | 87,358 | 205,942 | 367,220 | 78.0 | 103,741 | 50,832 | 52,169 | 56,588 |
| Western Maryland | 294 | 907,811 | 15,409 | 939,102 | 109,478 | 176,348 | 426,334 | 765,811 | 81.5 | 173,281 | 88,115 | 83,155 | 116,241 |
| | 840 | 3,125,642 | 27,831 | 3,238,868 | 362,675 | 624,140 | 1,841,704 | 1,941,674 | 59.9 | 1,297,194 | 760,000 | 590,558 | 783,908 |
| | 840 | 6,096,690 | 58,186 | 6,347,155 | 720,850 | 92,415 | 1,640,358 | 3,907,299 | 61.6 | 2,439,856 | 1,365,000 | 1,176,382 | 1,535,858 |
| Western Pacific | 1,195 | 3,940,878 | 509,419 | 4,571,386 | 559,730 | 652,085 | 1,243,049 | 2,689,050 | 58.8 | 1,882,336 | 1,135,731 | 545,177 | 240,234 |
| Wheeling & Lake Erie | 1,195 | 8,112,366 | 1,020,649 | 9,392,538 | 1,128,861 | 1,357,483 | 2,514,996 | 5,480,173 | 58.3 | 3,912,365 | 2,412,044 | 1,366,893 | 794,563 |
| | 507 | 2,195,249 | ..... | 2,244,566 | 166,372 | 42,668 | 635,985 | 1,270,865 | 57.1 | 933,731 | 843,900 | 294,757 | 251,393 |
| | 507 | 4,296,084 | ..... | 4,413,828 | 357,842 | 85,024 | 1,290,236 | 2,600,106 | 58.9 | 1,813,722 | 1,623,334 | 578,159 | 492,973 |
| Wisconsin Central | 1,130 | 1,294,524 | 55,497 | 1,473,146 | 194,209 | 274,962 | 666,437 | 1,226,568 | 83.3 | 246,578 | 101,105 | 121,989 | 112,165 |
| | 1,130 | 2,664,142 | 124,788 | 3,052,629 | 381,970 | 587,114 | 1,364,593 | 2,522,180 | 82.6 | 530,449 | 225,518 | 233,036 | 274,781 |

Wisconsin Central Feb. 2 mos. 1,130 1,294,524 55,497 1,473,146 194,209 27,962 37,935 666,437 1,226,568 83.3 246,578 101,105 121,989 112,165
 1,130 2,664,142 124,788 3,052,629 381,970 587,114 77,939 1,364,593 2,522,180 82.6 510,449 225,538 233,036 274,781

HOLLOW

Flexible

STAYBOLTS



Complete Installations

INSURE MAXIMUM
GROSS TON-MILES

FLANNERY BOLT CO.
BRIDGEVILLE PENNA.

BALDWIN *to Build*

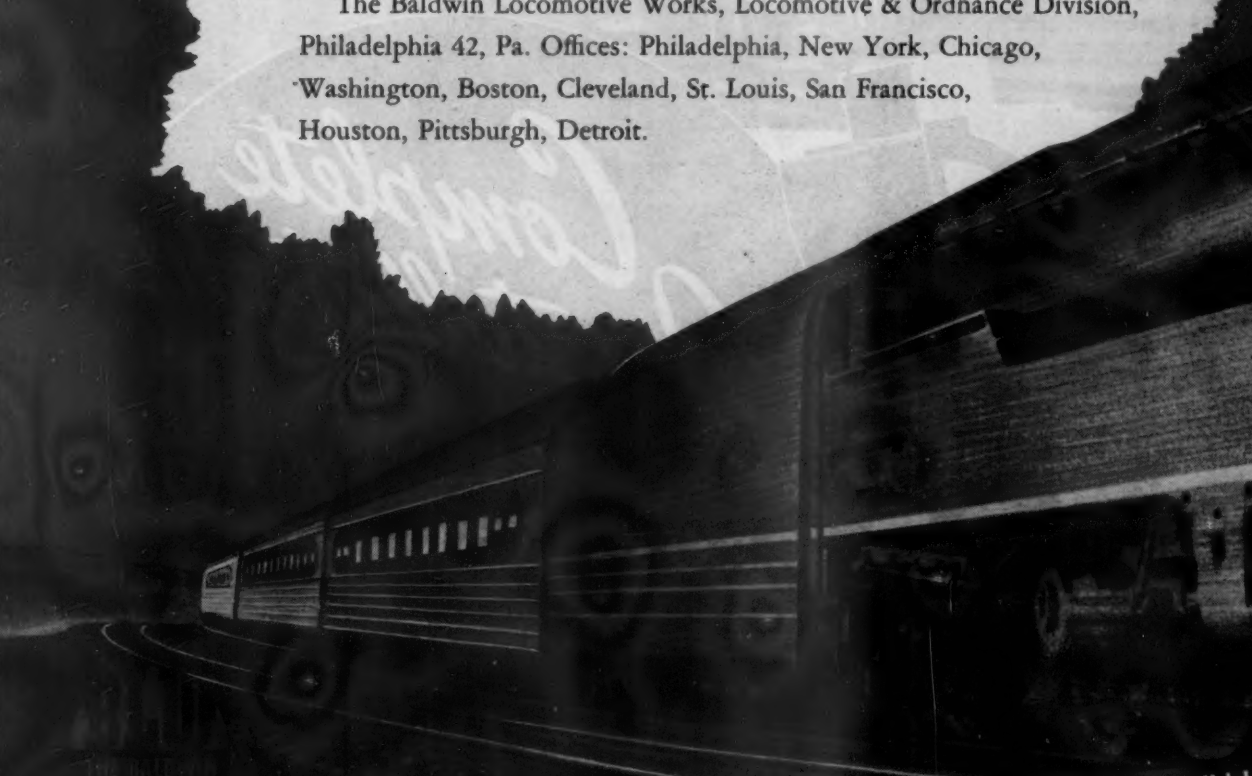
25

One of the most advanced types of steam power in use today, is the 4-cylinder non-articulated locomotive, developed by Baldwin and exemplified by two Class T-1 locomotives which have been serving the Pennsylvania Railroad since 1942.

These locomotives have been eminently successful in high-speed service and the Pennsylvania has placed orders for 50 more of the same type, 25 to be produced in the railroad's own shops and 25 to be built by Baldwin.

These repeat orders placed after exhaustive tests of the initial locomotives on the Altoona test plant and in actual service, are a tribute to the sound engineering principles embodied in the 4-cylinder non-articulated design.

The Baldwin Locomotive Works, Locomotive & Ordnance Division, Philadelphia 42, Pa. Offices: Philadelphia, New York, Chicago, Washington, Boston, Cleveland, St. Louis, San Francisco, Houston, Pittsburgh, Detroit.



BALDWIN SERVES THE NATION WHICH THE RAILROADS HELPED TO BUILD

5 *More Class T1 Locomotives*

BALDWIN

LOCOMOTIVES

BALDWIN PRODUCTS FOR THE
RAILROADS —

Locomotives, passenger cars, freight cars, cabooses, and other railroad equipment. Baldwin Locomotive Works, Philadelphia, Pa., is the largest manufacturer of locomotives in the world. Baldwin Locomotive Works, Philadelphia, Pa., is the largest manufacturer of locomotives in the world.

NOW THAT THE WAR IS OVER
Explore the Mystery of our Ancient Civilizations

**VISIT
MAGIC
MEXICO!**

THE LAST SHELL has been fired. You are free to travel anywhere on the map. Why not make a start with that well-earned vacation below the Border?

At Chichen Itza, where centuries ago beautiful, drugged virgins were thrown into the Sacred Wells of the Mayan Temples, you will be reminded of ancient Egypt or Indochina. In the language of old Mexico, the famous cathedrals built by the followers of Cortez, in the fronton games and the bullfights—you will find a second Spain.

Then, you will discover another Paris: in Mexico City! A Paris with modern buildings of pink volcanic stone, set on a high plateau where the mornings are Autumn and the evenings, Spring. And in near-by Acapulco you will find the smartness of Cannes—and the glamour of Tahiti!

You will return, as you came, in a luxurious air-liner or in an air-cooled Pullman. And mixed with your memories of the temples and towns... of the dark-eyed Indians... of the snow-capped volcanic giants, the cactus lands, the hibiscus, and palm... you will bring home with you a new familiarity with many peoples and many places... through the magic of Mexico!

NATIONAL RAILWAYS OF MEXICO

Prepared especially for this campaign by the Caples Company. (Agency for National Railways of Mexico.)

How about Your postwar travel ads?

Recently, a lot of people in the travel business have been trying their hands at postwar copywriting like this—just to get set with their advertising stories against the day when the sea lanes and the airlines and the railways are open to peace-time vacation travel again.

Some day (soon we all hope) advertisements like this one will once more be appearing in *TIME*, lots of them. For travel advertisers know that for years *TIME* has been the best way to reach America's most traveled million families. (For nine consecutive years *TIME* carried more Travel, Resort, and

Hotel advertising than any other magazine—except for one-year when it was second.)

And *TIME* will be tops tomorrow too. (Recently, for example, a survey indicated that 296,000 *TIME* families plan to visit Mexico as soon as the war is over.)



THE WAY TO REACH AMERICA'S MOST TRAVELED MILLION

FORWARD LOOKING

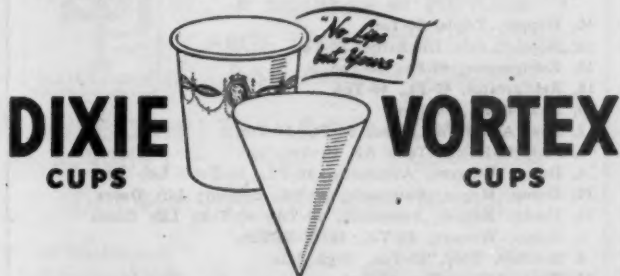
as Indirect
Lighting



Forward-looking railway coach designers should not overlook the latest developments in Dixie and Vortex cups, containers and dispensing equipment for—

COACHES CLUB CARS STATIONS
LUNCH BARS REST ROOMS

We welcome inquiries relative to ADAPTION or CREATION OF NEW DRINKING CUPS AND FOOD PAPER SERVICE EQUIPMENT fitted to your design requirements. Address: Railway Division, Dixie Cup Co., Easton, Pa.



STANDARD IN RAILROAD SERVICE FOR OVER 30 YEARS

MERCURY

would be just

as "also ran"

today...



Mercury, the guide and symbol of speed to the ancient Romans, would have no chance in the modern age of Speed.

Streamlined, fast, modern trains have steadily increased their speed, without sacrificing safety. High speed demands good headlights with dependable wiring.

Okonite has kept pace with modern standards and requirements. Okonite Headlight Wire, which resists vibration and high temperatures, assures continuous reliability in the operation of locomotive headlights, rear tender and cab lights.

You will find hundreds of the most modern locomotives are equipped with Okonite Headlight Wire. The Okonite Company, Passaic, New Jersey.

OKONITE
INSULATED WIRES AND CABLES

UNSKILLED LABOR ADDS NOTHING
TO A PRODUCT
EXCEPT
COST

a
natural
railroader

Ideal handler—
versatile, efficient,
tireless—for the multiplicity
of material items a railroad
has to handle—

CLARK fork truck

This is the way to slash a
needless and non-pro-
ductive cost.



CLARK TRUCTRATOR

BATTLE CREEK, MICHIGAN, U.S.A.

GET TOGETHER DEPARTMENT

For Sale

ROAD LOCOMOTIVES

- 2-Type 2-8-0, 23x26 cylinders, new 1923, tractive effort 39,300#.
- 1-Type 2-8-2, 16x24 cylinders, new 1920, tractive effort 22,200#.
- 3-Type 2-8-0, 20x24 cylinders, new 1920-23, tractive effort 35,400#.
- 2-Type 2-8-0, 23x32 cylinders, new 1920, tractive effort 45,700#.
- 2-Type 2-8-2, 25x30 cylinders, new 1928, tractive effort 55,900#.
- 2-Type 4-8-2, 27x30 cylinders, new 1929, tractive effort 71,950#.

SWITCHING LOCOMOTIVES

- 1-Type 0-4-0, 16x24 cylinders, new 1917, new boiler 1940.
- 2-Type 0-6-0, 17x24 cylinders, new 1923, ASME code boilers, 50 tons working wt.
- 3-Type 0-6-0, 19x26 cylinders, new 1920-23, ASME code boilers, will rebuild for ICC.
- 2-Type 0-6-0, 21x28 cylinders, new 1924, tractive force 37,000#., weight 87 tons.
- 2-Type 0-8-0, 25x30 cylinders, new 1922-24, tractive force 55,200#., weight 120 tons.
- 1-Plymouth, gas powered, 18 tons, new 1942.
- 2-Plymouth, gas powered, 30 tons, new 1938.
- 1-Davenport, Diesel powered, 30 tons, new 1942.

MISCELLANEOUS

- 5-50 ton capacity gondolas.
- 2-40 ton capacity Western air dump cars.
- 25-40 ton capacity box cars.
- 8-50 ton capacity flat cars.
- One (1) 25 ton Locomotive cranes. Rebuilt.
- D-6 Caterpillar tractor with bulldozer.
- One Yard dragline, 45 foot boom. Rebuilt.
- Austin-Western Badger shovel. One half yard bucket.
- Two (2) Diesel-electric power plants complete. 330 HP.

WE BUY SURPLUS EQUIPMENT!
Write — Wire — Phone

Exporting & Importing Co.
P. O. Box 2576 Dallas, Texas

RELAYING RAILS

12#—exceptionally good quality
RAILROAD TIE PLATES
for all size rails. All in good condition. For complete details, contact

SONKEN-GALAMBA CORP.
Kansas City 18, Kans.

Robert W. Hunt Company

ENGINEERS
Inspection—Tests—Consultation
All Railway Equipment
Structures and Materials
General Office:
175 W. Jackson Boulevard
CHICAGO
New York-Pittsburgh-St. Louis

POSITION OPEN

DIESEL ELECTRIC locomotive draftsmen wanted by established concern, entering locomotive field. Good opportunity to get in on beginning. Reply with complete information, including expected salary to Box No. 736, RAILWAY AGE, 30 CHURCH STREET, NEW YORK, 7, N. Y.

GET OUR PRICES FIRST RAILWAY EQUIPMENT and ACCESSORIES

We can furnish rails, spikes, bolts, angle bars, cranes and other railway material. Machines, motors, pumps, etc.

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Sonken - Galamba Corp.

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Educational Services for RAILROAD MEN

Our New Service
on

Diesel Locomotive
Operation
is highly recommended
for
Engineers and Firemen

**The Railway
Educational Bureau**
Omaha 2, Nebraska

Railroad Equipment Sales Engineer

Soundly established company in mid-west offers permanent, profitable, opportunity for aggressive, energetic Mechanical Engineer with freight transportation experience. Acquaintance with industrial materials handling systems useful. Knowledge of railroad freight handling methods particularly valuable as well as ability to present those problems to top management. Details of your education, experience, and future interests will receive prompt individual attention. Must have Statement of Availability. ADDRESS REPLIES BOX NO. 738, RAILWAY AGE, 30 CHURCH STREET, NEW YORK, 7, N. Y.

Manufacturer of heavy excavating and material handling equipment—Shovels, Cranes and Draglines, will employ a man thoroughly familiar with railway engineering and maintenance-of-way problems, for sales engineering work with railroads. Write, giving full information as to age, experience, education and compensation desired. Reply BOX CHURCH STREET, NEW YORK, 7, N. Y.
NO. 737, RAILWAY AGE, 30
WANTED—SALES ENG

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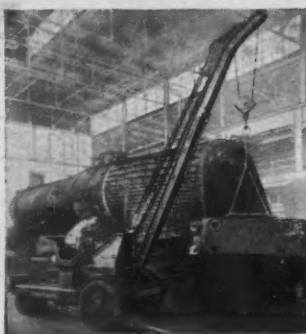


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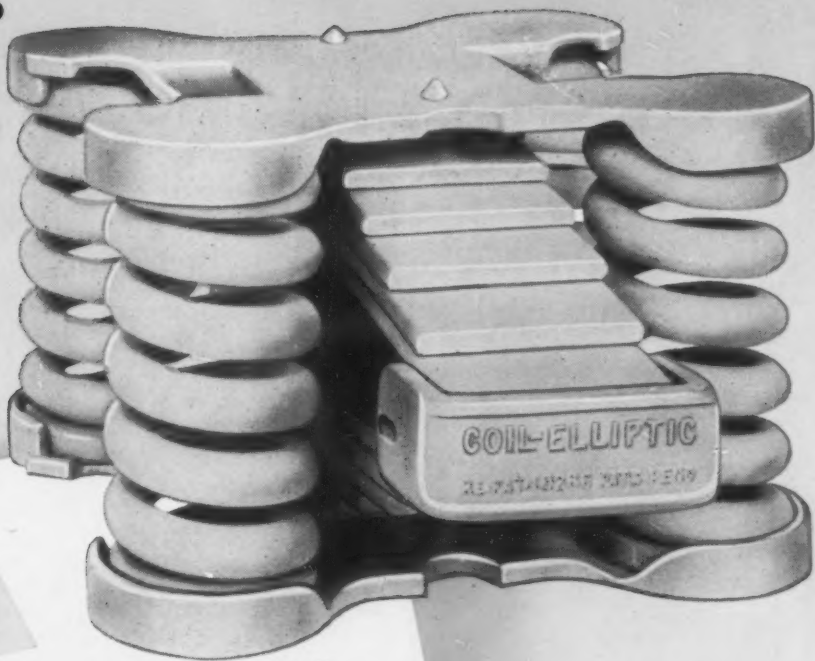
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